ELECTRICAL WEST

NOVEMBER 24, 1959

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# Buyers' Guide and Manufacturers' Directory

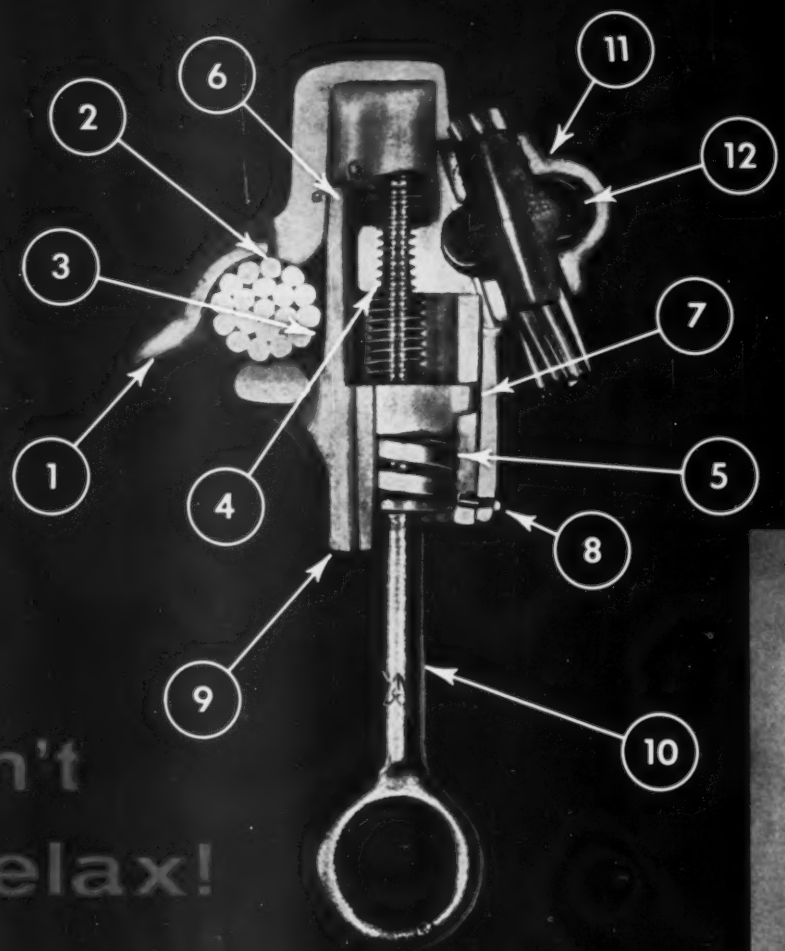
## 1960 EDITION

1 Directory of Manufacturers

79 Where-to-Buy Product List

105 Directory of Representatives

Readers Service Card (opposite page 32)




# Won't Relax!

## AH and BH Series Dura-TAP Hot Line Clamps

PATENT PENDING

Check the 12 features (shown above in cutaway view) of Anderson's new AH (aluminum) and BH (bronze) Dura-TAP hot line clamps. They're 12 sound reasons why you should specify these "won't relax" clamps for your next installation.

1. **Extended "beak" guides clamp onto conductor, minimizes arcing.**
2. **Semi-elliptical groove provides surer contact and wedging.**
3. **Special guide positions conductor in groove.**
4. **Protected threads—prevents freezing of moveable parts and "seizing" of threaded members.**
5. **High compression spring insures full contact at all times.**
6. **Exclusive keeper top rail rides under clamp body, prevents relaxing cantilever action on keeper.**
7. **Keeper guide lug maximizes keeper stabilization.**
8. **Retaining rivet prevents disassembly and interference during installation.**
9. **Extended body rail seats in any standard hot line stickhead.**
10. **Extra strong eyestem—will withstand Mercurous Nitrate test.**
11. **Eyebolt housing is part of main casting for minimum resistance.**
12. **Eyebolt designed to withstand seasonal cracking, stress corrosion.**

AH and BH each available in three sizes to cover all popular conductor ranges. AH may also be ordered plated for general purpose use.

ANDERSON ELECTRIC CORPORATION • BIRMINGHAM 1, ALABAMA

**ANDERSON ELECTRIC**

*Research / Quality / Performance / in Aluminum and Bronze Products*

# DIRECTORY of MANUFACTURERS

Alphabetical listing of manufacturers of electrical equipment, showing their principal Western offices and sales representatives. ● Every manufacturer operating in this territory is privileged to be included without charge. While this Directory is as accurate and complete as the publishers could make it, ELECTRICAL WEST assumes no responsibility for errors or omissions.

**A.-P. CONTROLS** (See Controls Corp. of America.)

**ABOLITE LIGHTING (a Division of Jones Metal Products Co.), West Lafayette, Ohio—O. W. Coombs,** Inc., 1026 S. Olive St., Los Angeles 15; Bruce-Emmett Co., 830 S. E. Alder St., Portland 14, and 1016 First Ave. South, Seattle 4.

**ACADEMY ELECTRICAL PRODUCTS CORP.,** 3842 Ninth Ave., New York 34, N. Y. — Eckert-Lloyd Co., 1950 Naomi Ave., Los Angeles, and 1225 6th St., San Francisco; Lynn & Brooks, 9931 N.E. Mason St., Portland, also Seattle and Denver.

**ACCURATE INSULATED WIRE CORP., 25 Fox St.,** New Haven, Conn.—McLoughlin Co., Box 3255 Terminal Annex, Los Angeles; Fred D. Benz Co., 444 Brannan St., San Francisco 7.

**ACCURATE MANUFACTURING CO., 44 Hopworth Place, Garfield, N. J.—F. J. Airey Co., 1513-1515 S. Mateo St., Los Angeles; Electric Agencies, 506 Second Ave., Seattle 4; L. B. Putnam Co., 1217 California St., Denver, and P. O. Box 2435, Salt Lake City; The Curry Co., 305 King St., San Francisco 16. (See ad, p. 1)**

**ACEC ELECTRIC CORP.,** 40 East 49th St., New York City 17—Branch offices—Acec Electric Corp., 833 E. Third St., Los Angeles, Calif., and 420 Market St., San Francisco, Calif. Distributors: Incandescent Supply Co., Oakland, San Francisco, Redding, San Jose, Sacramento, Fresno, Calif.; Hydraulic & Air Equipment Co., 2316 N. W. Savier St., Portland, Ore.; Littlejohn Reuland Corp., 2655 Santa Fe Ave., Vernon, Calif.

**ACKERMAN-JOHNSON CO.,** 625 W. Jackson Blvd., Chicago 6, Ill.—Eoff Electric Co., 509 N. W. Tenth Ave., Portland; W. C. Winks, 14th and Washington Sts., Portland; Westinghouse Electric Supply Co., 815 N. W. 12th Ave., Portland; C. W. Marwedel, 1235 Mission St., San Francisco; Los Angeles Wholesale Electric Co., 214 E. Third St., Los Angeles; C. D. Belt & Co., 2149 S. Clermont, Denver 22.

**ACME ELECTRIC CORP.,** 40 Water St., Cuba, N. Y. —Los Angeles plant; 12822 Yukon Ave., Hawthorne, Calif.; Sales Representatives: H. M. Denny Co., 111 West Harrison St., Seattle; W. A. Patterson, 420 Market St., San Francisco; Shefler-Kahn Co., 240 So. 1st Ave., Phoenix; The Hiebert Co., 5595 W. Iowa Ave., Denver 14.

**ACME ELECTRIC WELDER CO.,** 2618 Fruitland Ave., Los Angeles 58, Calif. — Ralph B. Lundy, 1063 Howard St., San Francisco; J. E. Haseltine Co., 115 S.W. 2nd Ave., Portland; 510 First Ave. South, Seattle, and N. 1101 Division St., Spokane; Arizona Welding Equip. Co., 815 East Broadway, Tucson, Ariz., and 415 South 7th St., Phoenix, Ariz.

**ACME GAUGE & INSTRUMENT CO. INC.,** 30 Main St., Brooklyn 1, N. Y.—Jensen Instrument, 429 Bryant St., San Francisco and 1919 Beverly Blvd., Los Angeles.

**ACME INDUSTRIES, INC.,** 600 N. Mechanic St., Jackson, Mich.—Thomas Babington, 1029 N. 1st St., Phoenix; R. L. Ballinger, 503 Maritime Bldg., Seattle; Thomas Davenport, 272 LaCruz Ave., Millbrae, Calif.; Fluid Refrig. Equip. Eng., 6022 W. Pico Blvd., Los Angeles; Winston W. Ebmeyer, 2905 N. Mississippi St., Portland; Sabol & Rice, 1961 Longview Dr., Salt Lake City; W. M. Carroll, 322 1st St. N. W., Albuquerque, N. M.

**ACME LIGHTING & MFG. CO.,** 949 East 31st St., Los Angeles 11, Calif.—Leo Kaufmann, 72 Sacramento St., San Francisco; California Elec. Supply, 1585 Folsom St., San Francisco; Peerlite Mfg. & Supply Co., 178 - 5th St., San Francisco; Sunlight Elec. Supply, 205 W. Market, San Diego; Elec'l Contractors Supply, 205 S. Third Ave., Pocatello, Ida.; Superior Sales Co., 1725 19th St., Sacramento; Portland Elec. & Plumbing Co., 905 S.W. 16th Ave., Portland; Hussar Elec. Supply Co., 103 N. Park Ave., Tucson; Carr Sales Co., 919 W. 1st St., Spokane; Elec. Dist. Co., 1530 E. Washington, Phoenix; Inland Pipe & Supply, Yakima, Wn.; NePage Elec. Supply, 800 Pine St., Seattle; Pavell Elec. Supply, 1025 S. I St., Las Vegas, Nev.

**ACME LITE PRODUCTS CO., Congers, N. Y.**—E. E. Strandholm, 3422 N. E. Halsey St., Portland; Lee Terry, Inc., 9138 S. Western Ave., Los Angeles; Guy de Leuze, 1923 Bryant St., San Francisco.

**ACME STEEL CO.,** 135th & Perry Ave., Chicago, Ill. —Branch offices: H. H. Gamble, Mgr., 1025 6th Ave., S., Seattle; S. J. Johnson, Mgr., 4901 Pacific Blvd., Los Angeles; W. H. Smythe, Mgr., 750 Second St., San Francisco.

**ACME WIRE CO.,** 1255 Dixwell Ave., New Haven 14, Conn.—Insulation Supply Co., Ltd., 779 E. Pico Blvd., Los Angeles 21 (Rep. on Varnished Electrical Insulations); Helm and Scheer, 11168 Santa Monica Blvd., Los Angeles 25 (Rep on Magnet Wire, Coil Windings, Varnishes and Compounds); Joseph C. Platt Ct., 111 Bell St., Seattle 1 (Rep on Magnet Wire, Coil Windings Varnished Elec. Insulations, Varnishes and Compounds); John H. Ormond Co., 600 16th St., Oakland, Calif.; Randolph Engineering Corp., P.O Box 2097, El Monte, Calif.

**ACORN INSULATED WIRE CO., INC.**—36 Freeman St., Pawtucket, Rhode Island—Keeler, White Co., 615 Seventh St., San Francisco; Keeler, White, Inc., 322 N. W. Fourth Ave., Portland 9, and 1041 Sixth Ave., South, Seattle; John Carder, Jr. Co., 1624 First St., N. W., Albuquerque; Makinney (Hawaii), 810 South St., Honolulu, Hawaii.

**ACRO DIV., ROBERTSHAW-FULTON CONTROLS CO.,** 2040 E. Main, Columbus, Ohio—Fred F. Alleman 1625 Blake Ave., Los Angeles; Fisher Switches Inc., 40 Gough St., San Francisco; C. B. Parsons 3028 First Ave., Seattle; Shefler-Kahn Co., 240 So 1st Ave., Phoenix; C. P. Elliott, 661 Delaware Denver 4.

**ADALET MFG. CO.,** 14300 Lorain Ave., Cleveland 11, Ohio—John H. Ormond Co., 600 - 16th St., Oakland, Calif.; Jim Dawson Co.; 611 Delaware St., Denver; Payne & Sloan, 1101 East 5th St., Los Angeles.

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**Garfield, New Jersey**



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### REPRESENTATIVES

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E. C. Coffin Co.
1661 E. 48th South
Salt Lake City 7

**PACIFIC COAST**
George P. Wilcox Company
2330 West 3rd Street
Los Angeles 5
Phone DUnkirk 3-3343

## L. B. ALLEN CO. INC.

**9310 Berenice (Metropolitan Chicago) Schiller Park, Illinois**


**ADAM ELECTRIC CO., FRANK,** 3650 Windsor Place, St. Louis, Mo.—F. E. Staible & Sons, 2046 Arapahoe St., Denver 2; Electrical Sales Co., 947 Folsom St., San Francisco; Smith & Thomas Co., 568 1st Ave. S., Seattle, and 5202 N.E. 73rd St., Portland.

**ADAMS & WESTLAKE CO.,** 1025 N. Michigan St., Elkhart, Ind.—The A. W. Nash Co., 2112 S. Atlantic Blvd., Los Angeles 22; C. B. Parsons & Co., 3028 First Ave., Seattle; T. R. Routh Co., 1209 Capuchino Ave., Burlingame, Calif.

**ADJUSTABLE FIXTURE CO.,** 104 E. Mason St., Milwaukee 2, Wis.—California Electrical Supply, Folsom at 12th St., San Francisco; Graybar Electric, 1750 Alameda St., San Francisco. Leading wholesalers all cities.

**ADMIRAL CORP.,** 3800 Cortland St., Chicago, Ill.—Cunningham Distributing, Inc., 615 Haines, N. W., Albuquerque; Admiral Distributing Corp., 495 Beach St., San Francisco, and 6565 E. Washington Blvd., Los Angeles, and Admiral Distributors, 1270 Columbia St., San Diego, and 1140 W. 5th Ave., Denver; Neil Distributors, Inc., 210 N. Ralph St., Spokane; John E. Amberg Co., 757 Harrison St., Seattle; Seaport Appliance, Inc., 3055 N. W. Yeon Ave., Portland.

**ADVANCE TRANSFORMER CO., 2950 N. Western Ave., Chicago, Ill.—Ray J. Noel Co., 5014 Hampton St., Los Angeles, and 1379 Folsom St., San Francisco; Pete Bach Electric, 1233 N.W. 12th Ave., Portland; Kenneth Radiger, P. O. Box 904, Billings, Mont.; A. J. Nelson Co., P. O. Box 5502, Denver 17; Wm. Fry, P. O. Box 1871, Salt Lake City; Robert Higgins, P. O. Box 938, Albuquerque; Lyle Heaton, 520 - 76th Ave. N.E., Medina, Wash. (See ad, p. 3)**

**AEMCO INC.** (formerly Automatic Electric Mfg. Co.), 10 State St., Mankato, Minn. —R. B. Clapp Co., 5404 Alhambra, Los Angeles 13; The Ballard Co., 407 Sansome St., San Francisco; J. E. Way, 925 Westlake Ave. N., Seattle.

**AERO INSTRUMENT CO.,** 11423 Vanowen St., North Hollywood, Calif. — Hollis Jewell Co., 5422 W. Washington Blvd., Los Angeles 16; Kierulff Electronics, Inc., 820 W. Olympic Blvd., Los Angeles 15; Wallace E. Connolly, 160 Gabarda Way, Menlo Park, Calif.; N. R. Schultz Co., 320 - 2nd & Cherry Bldg., Seattle 4.

**AERO RESEARCH INST. CO., INC.,** 315 N. Aberdeen, Chicago, Ill.—Western Control Equipment Co., 14615 Ventura Blvd., Sherman Oaks, and 3573 Pierce St., San Francisco 23, Calif.; 1209 Poplar Place, Seattle 44; Hyde Eng. Associates, 1341 Cherokee St., Denver 4, and 2220 Utah St., Albuquerque, N. M.; Western Control Equip. Co., 3840 N. Jokake Dr., Phoenix.

**AERO SERVICE CORP.,** 210 E. Courtland, Philadelphia 20, Pa.—E. E. Dando, 68 Post St., San Francisco 4; Herbert Lee, 33 Richards St., Salt Lake City.

**AEROTEC INDUSTRIES INC.,** Greenwich, Conn. —Thomas Machinery Sales, Inc., 2173 Colorado Blvd., Los Angeles; Fulcher Co., 24 California St., San Francisco; Landes, Zachary & Peterson Co., 601 S. Jason St., Denver; 4900 Domingo Rd., N.E., Albuquerque, and 2137 Mills St., El Paso; Fairman B. Lee Co., 241 Central Bldg., Seattle.

**AEROVENT FAN CO., INC.,** Ash and Ball Sts., Piqua, Ohio—Sharpe Eng. Co., 1266 S. Boyle Ave., Los Angeles; George E. Mead, 501 Arctic Bldg., Seattle 4; Mead & Associates, 317 S.W. Alder, Portland; Rex R. Reece, 5228 F St., Sacramento; Aero Supply Co., Box 3398 (Alcott Sta.), Denver; W. M. Walterskirchen, Box 1163, Missoula, Mont.

**AGA DIV., ELASTIC STOP NUT CORP. OF AMERICA,** 1027 Newark Ave., Elizabeth, N. J.—John C. Henberger, 4434 Ingraham Ave., San Diego; R. B. Clapp Co., 5404 Alhambra Ave., Los Angeles 32; McCarthy-Hood & Assocaites, 1485 Bayshore Blvd., San Francisco; Andrew L. Polich, Inc., 734 N.W. Glisan St., Portland 9; Seatronics, Inc., 1806 Bush Place, Seattle 44; Mt. States Machinery Co., 1526 Blake St., Denver 2; Pace-Turpin Co., 726 S. Third West, Salt Lake City.

**AIR-ELECTRIC TOOLS,** 6210 Compton, Los Angeles 1, Calif.

**AIRMATIC SYSTEMS, INC.,** 376 Bergen Blvd., Fairview, N. Y.—Maydwell & Hartzell, Inc., 870 Tennessee St., San Francisco; Charles Industrial Sales Co., 5201 First Ave. S., Seattle.

**AIR-MAZE CORP.,** Cleveland, Ohio—Williams Equipment Controls, 204 Dooly Bldg., Salt Lake City.

**AIRPOWERED HOT-STICK, INC.,** (see Auto Hot-Stick.)

**AIR-TRON, INC.** (Formerly Roy C. Stove Co.), 3536 W. 16th St., Indianapolis, Ind.—Westinghouse Electric Supply, General Electric Supply and Sylvania Electric Supply houses in all principal cities. Calif. Ultraviolet Co., 420 Market St., San Francisco.

**AJAX ELECTROTHERMIC DIV.** (See Ajax Magnethermic Corp.)

**AJAX ENGINEERING CORP.,** Lalor & Hancock Sts., Trenton, N. J.—A. W. Nash Co., 2112 So. Atlantic Blvd., Los Angeles 22.

**AJAX FLEXIBLE COUPLING CO., INC.,** Portage and English Sts. Westfield, N. Y.—Samson Sales, 420 Market St., San Francisco; A. W. Nash, 2112 S. Atlantic Blvd., Los Angeles 22; Haultain-Champion Co., 320 East 8th St., Oakland 6; J. S. Thurlow, 2405 Eleventh Ave., S. W., Seattle 4.

**AJAX MAGNETHERMIC CORP.,** Ajax Electrothermic Div., Ajax Eng. Div., Magnethermic Div., 3990 Simon Road, Youngstown 1, Ohio—Albert W. Nash, 2112 S. Atlantic Blvd., Los Angeles 22; George H. Thurston, 1 Estates Court, Orinda, Calif.; Tracy C. Jarrett, 95 S. Ammons St., Denver 15, Colo.

**ALADDIN HEATING CORP.,** 1111 West Ave. 137 San Leandro, Calif.

**ALBERTSON & CO., INC.,** 3100 Lowell Ave., Sioux City, Iowa—C. C. Beebe, 2058 W. 78th Place, Los Angeles; N. A. Post, 10308 S. Julius Ave. Downey, Calif.; K. E. Lagerberg, 2121 Routt Road Denver 15; J. M. Cornish, 400 Perkins St., Oakland; A. E. Mjoen, 3312 E. Republican, Seattle Dale Thompson, W. 1423 Glass, Spokane.

**ALCO VALVE CO.,** 865 Kingsland Ave., St. Louis 5, Mo.—Pacific Scientific Co. (in following cities) 760 Harrison St., San Francisco; 6280 Chalet Dr (Los Angeles), Bell Gardens, Calif.; 1218 S. E 7th Ave., Seattle; 421 Michigan St., Portland.

**ALL-BRITE LIGHTING DIV., 352 Shaw Road, South San Francisco, Calif.—Branch Offices: R. H. Hirte Dist. Mgr., 810 Monterey Pass Rd., Monterey Park, Calif.; A. G. Miller, Dist. Mgr., 1238 Weller St., Seattle; J. R. Ray, Dist. Mgr., 4820 E. Missouri, Denver; F. J. Bertolone, SF Dist. Sales Mgr. 352 Shaw Road, South San Francisco.**

**ALLEGHENY LUDLUM STEEL CORP.,** 2020 Oliver Bldg., Pittsburgh, Pa.—Branch offices, Box 6848 Los Angeles 22; 36 Berry St., San Francisco 7; 1927 First Ave., South, Seattle; 1223 N. W. Overton St., Portland 9.

**ALLEN COMPANY, INC., L. B., 9310 Berenice (Metropolitan Chicago), Schiller Park, Ill.—George P Wilcox, 2330 W. 3rd St., Los Angeles 5; E. C Coffin Co., 1661 East 48th St., South, Salt Lake City. (See ad, p. 2)**

**ALLEN-BRADLEY CO., 136 W. Greenfield Ave., Milwaukee, Wis.—Branch Office: 1264 S. Boyle Ave. Los Angeles 23; Campbell & George Co., 1661 Cortland Ave., San Francisco 10; Young Electric & Mfg., 2134 Curtis St., Denver 5; James A. Setchell 301 West "G" St., San Diego 1; A & A Supply Co., 114 Morningside Dr., N.E. Albuquerque, N. M.; Stevens Sales Co., 1482 Major St., Salt Lake City 10; Edw. P. Weller & Co., 1902 E Rovey Ave., Phoenix; J. A. Tudor Associates, Inc. 2605 Western Ave., Seattle 1, and 1004 S.E Belmont St., Portland 14; W. Bert Knight Co., 10377 W. Pico Blvd., Los Angeles 64, Calif. Stocking Distributor: Phillips & Edwards Elec. Corp., 265 Vermont St., San Francisco 3; Redwood City, Stockton, Santa Rosa; Incandescent Supply Co. Redding.**

**ALLEN COOLER & VENTILATOR, INC.,** 704 Woodward Ave., Rochester, Mich.—Air Equip. Sales Co. 3020 Glendale Blvd., Los Angeles 31; Harris Supply, 524 N. W. 14th St., Portland 6; Phillips Steel Co., 413 Slate Ave. N. W., Albuquerque; Builders Supply, Box 176, Helena; Oliphant Commercial Corp., 610 Oak St., Oakland 7; Skyline Sales Co 458 S. 3rd Ave. E., Salt Lake City 11; J. C. Kelly Co., E. 3008 Trent Ave., Spokane 24.

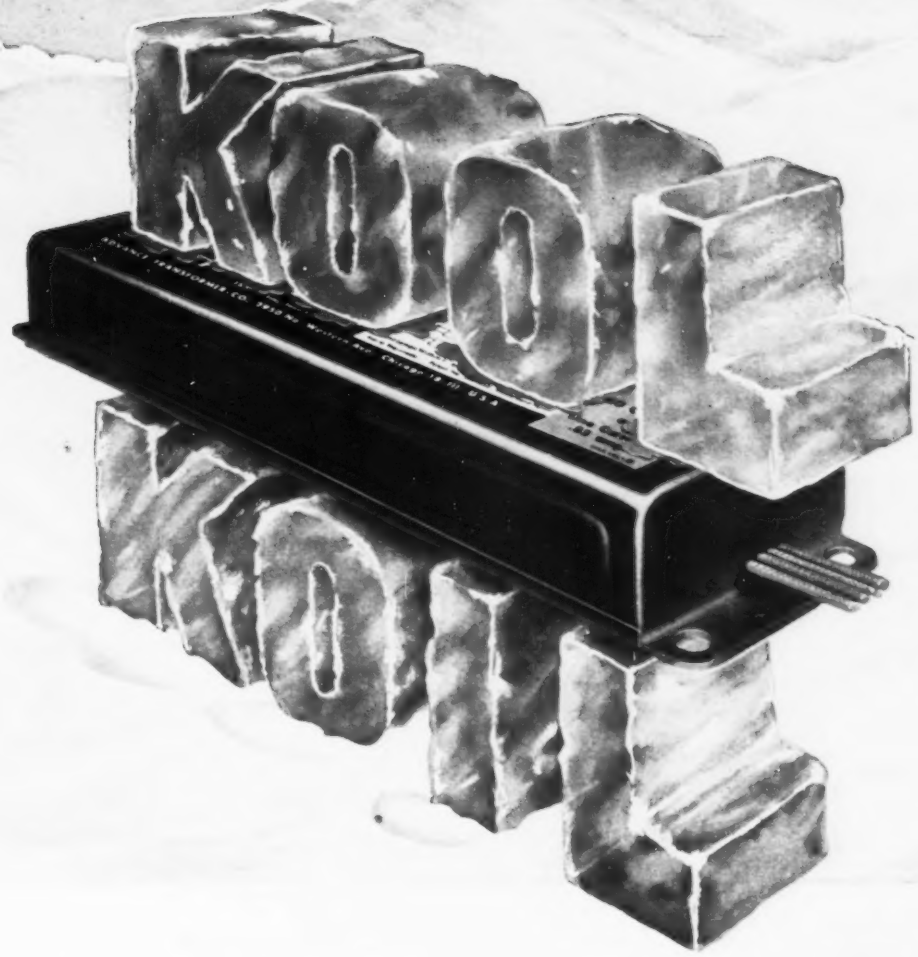
**ALLEN-STEVENS CONDUIT FITTINGS CORP., 33 62nd St., Woodside, N. Y.—Kobert-Phillips Co. 331 Winston St., Los Angeles; Curry Co., 308 King St. San Francisco; Bach Associates, 150 Jackson St., Denver.**

**ALLEN MANUFACTURING CO.,** Bloomfield, Conn. George R. Newton, 6935 E. Bandini Blvd., Los Angeles 22; Robert P. Marks, 1485 Bayshore Blvd., San Francisco 24.

**ALLEN & OLSEN MFG. CO.,** 4230 Del Rey Ave Venice, Calif.

**ALLIS-CHALMERS MFG. CO.,** 1126 S. 70th St., Milwaukee, Wis.—Factory Tractor Branches: Earl Begley, Mgr., 2501 Fourth Ave. N., Billings; George R. Gorham, Mgr., 4440 E. 49th St., Los Angeles G. W. Schierman, Mgr., 1400 Park Ave., Oakland O. E. Lieberg, Mgr., 602 S. First Ave., Pocatello A. D. Reichard, Mgr., 1305 S.E. Union Ave Portland.

**ALLIS-CHALMERS MFG. CO., 1126 S. 70th St., Milwaukee, Wis.—R. L. Engel, Manager, Pacific Region, 41 Sutter St., San Francisco. District Offices James A. Longley, Manager, 650 Harrison St., San Francisco; D. E. Steele, Manager, 417 S. Hill St., Los Angeles; W. J. Myers, Branch Mgr., 747 Ninth Ave., San Diego; T. E. Meyers, Manager, 520 S. W 6th Ave., Portland; S. C. Bacon, Manager, 1318 4th Ave., Seattle; R. D. Moody, Manager, Rocky Mountain Region. District Offices: L. B. Gay, Manager, 655 Broadway Bldg., Denver; B. A. Sears Manager, 136 S. Main, Salt Lake City; W. C. Nesbeitt, Manager, West 12 Indiana Ave., Spokane; W. C. Kinnon, Mgr., 3300 North Central Ave., Phoenix; Malcolm S. Jones, Manager, Electric Bldg. 215 North Stanton St., El Paso.**



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Ballast life is cut in half for each 10°C over normal operating temperatures. ADVANCE KOOL KOIL BALLASTS operating 16.5°C to 19.5°C cooler give 3½ to 4 times longer life.

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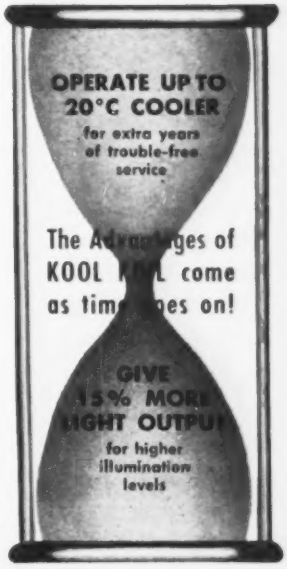
This higher efficiency of ADVANCE KOOL KOIL BALLASTS offers fluorescent lighting users savings in operating costs and manufacturers the opportunity to increase fixture efficiency.

The design of ADVANCE KOOL KOIL BALLASTS is the result of 3 years of research, a great stride in solving the heat problems of the lighting industry. Advance engineers separated vital components in the ballast case to end costly condenser trouble. They developed new grades of steel and wire, incorporated special insulating materials and compounds. The result, ADVANCE KOOL KOIL FLUORESCENT LAMP BALLASTS that end costly maintenance and interruptions in service. Insist on ADVANCE KOOL KOIL, designed and built to last for the life of your lighting installation.

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**ALLIS CO., LOUIS,** 427 E. Stewart St., Milwaukee, Wis.—The Louis Allis Co., 1275 Rollins Rd., Burlingame, Calif.; 708-5th Ave. S., Seattle; 1733 N. E. 7th Ave., Portland, and 4405 E. Olympic Blvd., Los Angeles; Elec'l Sales Co., P. O. Box 49, Sugarhouse Sta., Salt Lake City; Hubert Kaub & Co., 1025 Santa Fe Dr., Denver 4.

**ALLMETAL ENGINEERING, INC.,** 1003 S. Date Ave., Alhambra, Calif.—L. M. Baxter Co., 1238 N. W. Glisan St., Portland; Roth Sales Co., 630 Jasmine St., Denver.

**ALL-STEEL EQUIPMENT, INC.,** 245 John St., Aurora, Ill.—The Sanderlin Co., 129 First Ave. W., Seattle and 56 S.E. Belmont St., Portland 14; Gaer Sales 1223 Quivas St., Denver 4; Elkins Elec. Agency, 235 S. Alameda St., Los Angeles 12; Baxter Co., 101 Kansas St., San Francisco.

**ALPHA ELECTRIC PRODUCTS CO.,** 3625 N. Halsted St., Chicago, Ill.—Roy Gratiot & Co., 1261 S. Glendale Ave., Glendale, Calif.

**ALPHA METALS INC.,** 56 Water St., Jersey City, N. J.—Branch 2343 Saybrook Ave., Los Angeles 22.

**ALPHA WIRE CORP.,** 200 Varick St., New York City—Perlmuth Electronic Associates, 5057 W. Washington Blvd., Los Angeles 16; Samuel N. Stroum Co., 1612 Broadway, Seattle 4; Bill Kolans & Co., 219 California Dr., Burlingame, Calif.; Hyde Electronics Co., 888 S. Lipan St., Denver 23.

**ALPHADUCT WIRE & CABLE CO.,** 25 Van Dyke Ave., New Brunswick, N. J.—Leich Sales Corp., 11401 West Pico Blvd., West Los Angeles, Calif.; Automatic Electric Sales Corp., 55 New Montgomery St., San Francisco; 4415 W. Pico Blvd., Los Angeles 19, and 644 Central Bldg., Seattle 4.

**ALUMINUM BODY CORP.,** Washington St. at Vail, Montebello, Calif.

**ALUMINUM COMPANY OF AMERICA, Alcoa Bldg., Pittsburgh, Pa.—Branch Offices: Robert A. Rohn, District Sales Manager, Equitable Life Bldg., San Francisco 4; C. B. Thompson, Branch Mgr., 1001 46th St., Oakland 8; C. R. Boyle, District Sales Mgr., 1145 Wilshire Blvd., Los Angeles 14; R. A. Hutchinson, Jr., Branch Mgr., 2962 Fifth Ave., San Diego 3; R. C. Benedict, Resident Mgr., 625 G First Nat'l. Bank Bldg., Phoenix; E. G. Cahill, District Sales Mgr., 1411 Fourth Ave. Bldg., Seattle; Eugene P. Burton, Branch Mgr., 1115 U. S. Nat'l. Bank Bldg., Portland 4; J. K. Sliger, Branch Mgr., 610 Fidelity Bldg., Spokane 1; R. W. Roylance, Resident Mgr., 1220 Vista Ave., Boise. Distributors: Graybar Electric Co., Inc., all principal cities.**

**ALUMINUM INDUSTRIES, INC.,** 3670 Work Road, Cincinnati, Ohio—Northwest Factory Agents, 205 Lenora St., Seattle 1; Edward J. Ryan, 1863 Wazee St., Denver 2; C. Stuart McPherson, 117 Glenwood Ave., Woodside, Calif.

**ALUMINUM PRODUCTS, INC.,** P. O. Box 1462, Fort Lauderdale, Fla.—Branch Office: P. O. Box 91, San Mateo, Calif.; S. Cinkosky, Rt. 2, Post Falls, Idaho; M. C. Guire Co., 715 S. York St., Denver; Industrial Engineering & Equipment Corp., 2975 Wilshire Blvd., Los Angeles 13; Pacific Utilities Supply Co., 605 3rd St., San Francisco 7.

**ALWALT MFG. COMPANY, 1706 Lapham Drive, Modesto, Calif.—O. W. Coombs Sales Co., 1026 S. Olive St., Los Angeles; Guenther & Tate Co., 825 Taylor Ave., Seattle 9, and 139 S. E. Taylor, Portland; Wm. Benndorf Co., 221 East Camelback Rd., Phoenix; James J. Hallek, 4204 Palo Duro N.E., Albuquerque; Easter-Owens Electric Co., 4200 Fox St., Denver 16; Brill Electric Sales, 446 Bryant St., San Francisco 7; Hugh L. Bargion, P. O. Box 3679, Honolulu 11, Hawaii.**

**AMADCO,** 5015 S.E. Haig, Portland, Ore.—G. M. Howard & Associates, 1301 6th St., San Francisco; Victor J. Miller & Associates, 4122 S.E. 10th Ave., Portland; Hayjax Co., 436 Colyton St., Los Angeles; W. C. Osborn, 7116 N. 13th, Phoenix.

**AMCO PLASTIC PIPE CO.,** 2002 Davis St., San Leandro, Calif.; Howe & Howe, 4328 N. 42nd St., Phoenix.

**AMERICAN BLOWER DIV.** (see American Standard).

**AMERICAN BRASS CO., Anaconda Metal Hose Division, 698 South Main St., Waterbury 20, Conn. (See Anaconda Metal Hose) (See ad, p. 7)**

**AMERICAN CHAIN & CABLE CO., INC., AMERICAN CHAIN DIVISION,** 454 E. Princess St., York, Pa.—Branch offices: 6800 E. Acco St., Los Angeles; 890 Tennessee St., San Francisco; 2210 N. W. Roosevelt St., Portland, and 4555 E. 46th Ave., Denver.

**AMERICAN CHAIN & CABLE CO., INC.,** Page Steel and Wire Div., 1st and River Sts., Monessen, Penna.—Branch offices: 6800 E. Acco St., Los Angeles; 890 Tennessee St., San Francisco, and 4555 E. 46th Ave., Denver.

**AMERICAN CONTROL CORP.,** 133 E. Palmer Ave., Compton, Calif.

**AMERICAN CROSSARM & CONDUIT CO. DIV.** (see A. B. Chance Co.)

**AMERICAN ELECTRIC CABLE CO.,** 181 Appleton St., Holyoke, Mass.—Walter E. Pollock & Assoc., 1472 Cardiff Ave., Los Angeles 35; Federal Dist Co., 205 S.E. Union Ave., Portland; Howell Sales Inc., 234 Commonwealth Bldg., Denver; Electrical Mfg. Rep. Inc., P. O. Box 3085 Terminal Annex Los Angeles.

**AMERICAN ELECTRIC FURNACE, INC.,** 300 Freeport St., Boston 22, Mass.—Allied Northwest Machine Tool Corp., 103 S. W. Front Ave., Portland 4, and 1921 First Ave., S., Seattle 4.

**AMERICAN ELECTRIC HEATING & AIR COND CORP.,** 638 N. Robertson Blvd., Los Angeles—Pacific Wholesale Electric Co., 711 Union St. San Diego 12; Cowan Products Co., 808 R St., Sacramento 14, Calif.; Columbia Sales, 721 Dearborn St., Seattle 4.

**AMERICAN ELECTRIC MFG. CORP., 3271 Chelsea** Ave., Memphis, Tenn.—Ralph L. Mooney, 540 E Rose Lane, Phoenix; R. E. Cunningham & Sons 530 W. 6th St., Los Angeles; Paul S. Everley Co. 550 9th St., San Francisco; Thomas S. Wood Co. 229 9th Ave. N., Seattle; R & M Sales, 2214 S Clayton, Denver; Utilities Supply Co., 419 S. 7th Phoenix.

**AMERICAN ELECTRIC SWITCH DIV.,** Clark Controller Co., 1146 East 152nd St., Cleveland 10 Ohio—The Clark Controller Co., 4755 E. 49th St. Los Angeles 58.

**AMERICAN ELECTRONICS INC.,** 1025 West 7th St. Los Angeles 17, Calif.—Electro-Mechanical Div., 4811 Telegraph Rd., Los Angeles 22; Electric Machinery & Equip. Div., 2112 N. Chico St., El Monte, Calif.; Instrument Div., 9503 W. Jefferson Blvd., Culver City; American Nuclear Div., 9459 W. Jefferson Blvd., Culver City; American Laboratories Div., 1536 E. Ross Ave., Fullerton, Calif

**AMERICAN ENGINEERING CO.,** Wheatsheaf Lane & Sepviva St., Philadelphia 37, Pa.—F. E. Bennett Co. (Hoist), 426 N. W. 6th, Portland; Cordes Bros. (Marine), 45 California St., San Francisco and 305 W. F St., Wilmington, Calif.; Ditzer Eng. & Sales Co. (Pump), 6002 Telegraph Ave., Oakland; Elder & Co. (Hoist), 390 7th St., San Francisco 3; G. B. Saunders (Stoker), 3014 Market St., Seattle; Paul-Munroe Co. (Pump), 6430 E. Gage Ave., Bell, Calif.; Charles Ind. Sales, 5201 First Ave., S., Seattle.

**AMERICAN EQUIPMENT & BODY CO.,** 1461 E. Washington, Los Angeles.

**AMERICAN FLEXIBLE CONDUIT CO.,** 969 Shawmut Ave., New Bedford, Mass.—Thomas D. Noble Co., 210 12th St., San Francisco; Pacific Electric Sales Co., 140 S.E. 28th Ave., Portland; California Conduit & Cable Co., 2204 Orange St., Alhambra Calif.

**AMERICAN FLEXIBLE DIV.,** Zurn Industries, Inc. 1840 Pittsburgh Ave., Erie, Pa.—Bearing Sales & Service, Inc., 2908 Sixth Ave., South, Seattle 4, and 1645 N. W. Hoyt St., Portland; Mark-Costello Co., 6511 Whittier Blvd., Los Angeles 22, and 3022 Voltaire St., San Diego; F. Somers Paterson Co., 157 Thirteenth St., San Francisco 3.

**AMERICAN LAVA CORP.,** Cherokee Blvd. and Mfgr.'s Road, Chattanooga, Tenn. — Minnesota Mining & Mfg. Co., 320 Shaw Road, South San Francisco, Calif.; 6023 S. Garfield Ave., Los Angeles 22, and 3663 First Ave., South, Seattle 4.

**AMERICAN LIGHTING EQUIPMENT CO.,** 1429 S Eastern Ave., Los Angeles 22.

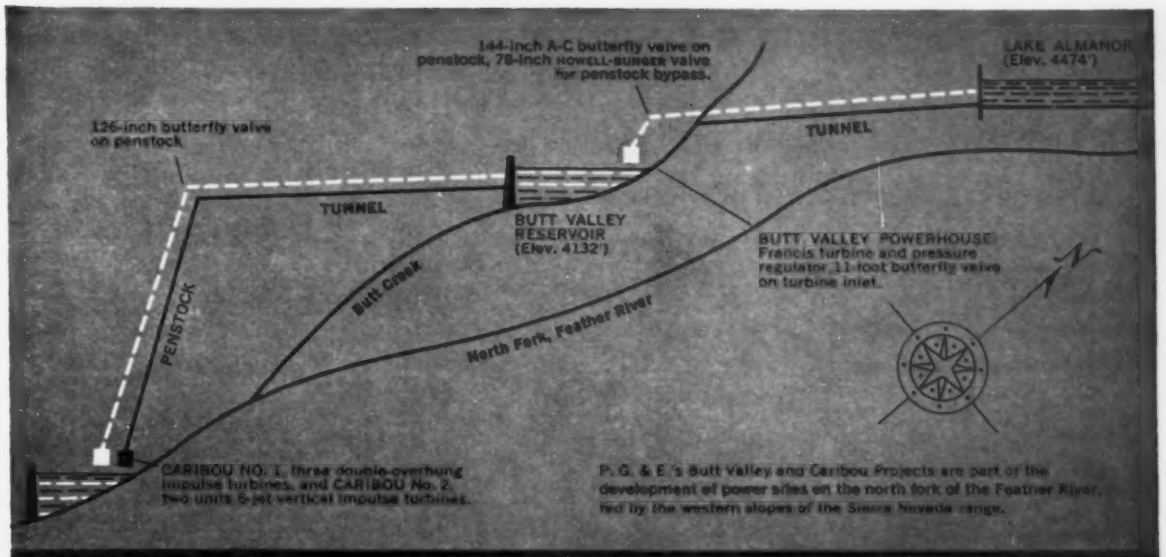
**AMERICAN MACHINE & METALS, INC.** (De Bothezat Fans Div.), 48 Thomas St., East Moline, Ill.—(See De Bothezat Fans Div.)

**AMERICAN METAL MOULDING CO., 146 Colt St.,** Irvington, N. J.—O. W. Coombs Sales Co., 1026 S. Olive St., Los Angeles; A. S. Knight Co., 3010 Western Ave., Seattle; Everett T. Vonier, Inc., 1160 Elati St., Denver 4.

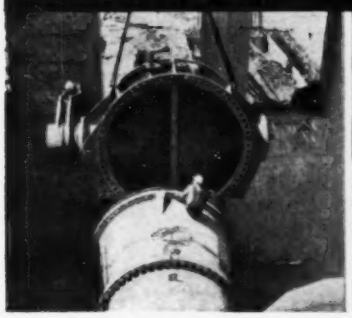
**AMERICAN OPTICAL CO.,** Mechanic St., Southbridge, Mass. — American Optical Co., Safety Products Div., 25 Kearny St., San Francisco; 1433 Cole Place, Hollywood; 312 Dexter Ave. N., Seattle, and 644 Delaware St., Denver.

**AMERICAN PAMCOR., INC., 181 Hillcrest Ave., Havertown, Pa.—Peters-deLaet, Inc., 1606 Rollins Rd., Burlingame, Calif.; 1277 S. W. 11th, Portland 5; 1331 Third Ave., Seattle; 212 Beason Bldg., Salt Lake City, and 1207 W. College, Spokane. Branch: 3138 W. El Segrendo Blvd., Hawthorne, Calif.**

**AMERICAN PIPE AND CONSTRUCTION CO.,** 4633 Firestone Blvd., South Gate, Calif.—Branch in San Diego and Hayward, Calif.

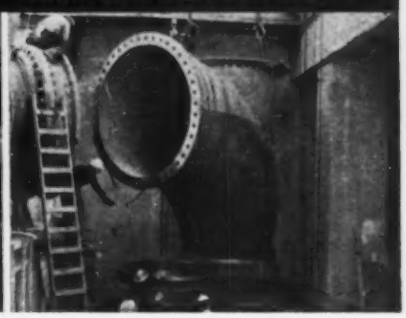



The 11-foot butterfly valve on the Butt Valley turbine inlet is shown being lowered into position.



Turbine spiral case in position at Butt Valley prior to the installation of the turbine runner.

Pressure regulator inlet elbow being positioned. Spiral case is at the left and energy absorber and discharge chamber below.



# Allis-Chalmers Turbines, Pressure Regulator and Valves Installed at Butt Valley and Caribou Powerhouses, No. 1 and No. 2.

At Pacific Gas & Electric Company's new Butt Valley Powerhouse development, an Allis-Chalmers vertical Francis turbine with pressure regulator, two butterfly valves and one HOWELL-BUNGER valve are installed. This turbine is rated at 55,000 HP at 200 rpm under a 280-foot rated head.

A stalling-type pressure regulator, with provision for quick and simple conversion to synchronous bypass control, it's attached to the spiral case. Designed for a minimum opening time of 3 seconds, the pressure regulator is required because of the 5763-foot long penstock and the relatively remote location of the surge tank. An 11-foot A-C butterfly valve is located at the turbine inlet, while the other butterfly valve will be used as a penstock shutoff valve. The HOWELL-BUNGER valve serves as a penstock bypass.

Down stream from Butt Valley is Caribou No. 1 Powerhouse, with 3 Allis-Chalmers horizontal, double-overhung impulse units, 30,000 HP each, two units paralleled 1921, the third unit paralleled 1924, and Caribou No. 2 Powerhouse, completed along with Butt Valley in 1958. Caribou No. 2 has two Allis-Chalmers vertical, 6-jet impulse turbines, each rated 76,000 HP at 1110-foot head at 240 rpm. At each turbine inlet is a 54" rotary valve of latest Allis-Chalmers manufacture.

You can look to Allis-Chalmers for the latest in design, engineering and manufacturing of a complete line of hydraulic turbines and their accessories. For further information, contact your local Allis-Chalmers office or write Allis-Chalmers, Hydraulic Division, York, Pa.

*HOWELL-BUNGER and ROTOVALVE are Allis-Chalmers trademarks*

*Hydraulic Division* RESEARCH DESIGN HYDRODYNAMICS ENGINEERING FABRICATION

ROTOVALVE • Ball Valves • Butterfly Valves • Free-Discharge Valves

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**ALLIS-CHALMERS**

# WRATHALL & KRUSI

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**SECULATE COMPOUNDS**
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PROTECTIVE PAINTS
for
STEEL POLES, TOWERS
AND SUBSTATIONS

**681 MARKET ST.**
**SAN FRANCISCO 5**
**PHONE EXbrook 7-3593**


**AMERICAN PULLEY CO.**, 4200 Wissahickon Ave., Philadelphia, Penna.—Henry F. Adams, 911 Western Ave., Seattle; G. P. Weishaar, 880 51st Ave., Oakland, Calif.; W. W. Ower, 1238 S. Atlantic Blvd., Los Angeles.

**AMERICAN RECTIFIER CORP.**, 95 Lafayette, New York, N. Y.—J. A. Tudor & Assoc., 2605 Western Ave., Seattle 1, and 1004 S. E. Belmont, Portland.

**AMERICAN SCREW CO.**, 1662 West Main St., Willimantic, Conn.—David Winslow Co., 25 California St., San Francisco 11; Ralston R. Cunningham Co. Inc., 71 Columbia St., Seattle 4; Clarence F. Herrmann Co., 420 S. San Pedro St., Los Angeles 13; P. W. Sheppard & Associates, 1219 California St., Denver.

**AMERICAN SEALANTS CO.**, 353 Woodbine, Hartford 6, Conn.—Northwest Sales & Eng. Service, 420 Market St., San Francisco, and 915 Terminal Bldg., Seattle; Don Porter Co., 1117 S. Robertson Blvd., Los Angeles 35; Paul R. Spencer Co. Inc., 4000 York St., Denver 5 and P. O. Box 1633, Albuquerque, and 2520 S. State St., Salt Lake City.

**AMERICAN SOLENOID**, Union City, N. J.—Artwel Electric Inc., 1485 Bayshore Blvd., San Francisco.

**AMERICAN-STANDARD**, American Blower Div., 1900 First Ave., San Leandro, Calif.—Branch offices: 132 S. Central Ave., Phoenix; 506 Douglas Oil Bldg., Los Angeles 17; Security Bldg., Sacramento 16, Calif.; 821 Market St., San Francisco 5; 1304 Cherokee St., Denver 4; 209 M and R Bldg., Billings; 142 Monroe N. E., Albuquerque; 458 S. Third, E., Salt Lake City, and 1305 Republican St., Seattle 9.

**AMERICAN STEEL & IRON WORKS**, 5801 S. Lowe Ave., Chicago, Ill.—West Pacific Sales Co., 1825 S. W. 6th Ave., Portland, and 325 Second Ave. West, Seattle; Electric Sales Corp., 211 Umatilla, Denver 23; John W. Reynolds, 1481 S. Main St., Salt Lake City; Frank J. Hornsby, 753 42nd Ave., San Francisco.

**AMERICAN STEEL & WIRE DIV., U. S. Steel Co., 822 Rockefeller Bldg., Cleveland, Ohio—Columbia Geneva Steel Div., U. S. Steel Co., in following cities; 120 Montgomery St., San Francisco; 2087 E. Slauson Ave., Los Angeles; 2345 N.W. Nicolai St., Portland; 7th Ave. & Olive Way, Seattle; Walker Bank Bldg., Salt Lake City 1.**

**AMERICAN THERMOSTAT CORP.**, Rte. 23, South Cairo, N. Y.—Sales Engineers, Ltd., 7919 Monroe St., Paramount, Calif.

**AMERICAN WARMING & VENTILATING CO.**, 1017 Summit, Toledo, Ohio—Norman S. Wright Co., 1015 Folsom St., San Francisco; Claude B. Smith Co., 200 Davis St., San Francisco.

**AMMERMAN CO., INC.**, 110 N. 2nd St., Minneapolis, Minn.—Charles S. Davis, 3529 Monte Vista Blvd. N. E., Albuquerque; Tenaire, Inc., 1029 N. 1st St., Phoenix; Trinity Co., Inc., 2742 W. 29th Ave., Denver; J. L. Myers, 204 Davis St., San Francisco; Tennity & Co., Inc., 1300 W. 8th S.t, Los Angeles; W. R. Norte Co., 216 N. E. Oregon St., Portland; Midgley-Huber, 44 W. 8th S. St., Salt Lake City; W. H. Welch, 701 6th Ave. N., Seattle; Nelson Mech. Equip. Co., 124 E. Augusta, Spokane; Mueller Eng. Co., 909 E. 2nd St., Butte.

**AMP, INC.**, Harrisburg, Pa.—Branch: 3138 W. El Segundoo Blvd., Hawthorne, Calif. Distributor: Pamco; Peters-deLaet Inc., 1606 Rollins Road, Burlingame.

**AMPERE INDUSTRIES**, 60 Boston St., Newark 3, N.J.—W. E. Ferris, 422 W. Roses Road, San Gabriel, Calif. (Industrial Processing Elements only) Space Heating from Newark, N. J. only.

**AMPEX CORP.**, Instrumentation Division, 934 Charter St., Redwood City, Calif.—Branch: 8467 Beverly Blvd., Los Angeles, and 271 Town & Country Village, Palo Alto, Calif.

**AMPLEX CORPORATION**—The Sanderlin Co., 129 1st Ave. West, Seattle, and 56 S.E. Belmont St., Portland; Ray J. Noel, 5015 Hampton St., Los Angeles and 1379 Folsom St., San Francisco; Wm. Benndorf Co., 221 E. Camelback Road, Phoenix; Kenneth W. Carr, 1440 Fourth St., Berkeley; L. S. Reed Co., 1018 Lawrence St., Denver; Stone Hall Co., 3101 Walnut St., Denver.

**ANACONDA METAL HOSE DIVISION, The American Brass Co., 698 South Main St., Waterbury, Conn.—Branch Offices: 120 Montgomery St., San Francisco; P. O. Box 217, Paramount, Calif.; 909 7th St., Denver; 1311 Tower Bldg., Seattle. Distributors in all principal cities. (See ad, p. 7)**

**ANACONDA WIRE & CABLE CO., Executive and Sales Headquarters, 25 Broadway, New York 4; Manufacturing and Engineering Headquarters, Hastings-on-Hudson 6, New York, E. A. Casey, Hastings-on-Hudson 6, N. Y.; A. W. Tracy, District Manager, 807 Douglas Oil Bldg., Los Angeles 17; William K. Gaylord, Diartict Manager, 120 Montgomery St., San Francisco 4; Albert Leader, Dist. Manager, 953 Stewart Building, Seattle 1; K. G. Eaton, District Manager, 706 Railway Exchange Building, Denver 2.**

**ANCHOR MANUFACTURING CO.**, Bedford Street, Manchester, N. H.—The Agencies Co., 836 Traction Ave., Los Angeles; Muth-Richards Co., 1804 Bush Place, Seattle; Tudor & Associates, 1004 S. E. Belmont St., Portland; L. S. Reed & Co., 1018 Lawrence St., Denver; John Eiggren, 428 South West Temple, Salt Lake City; George R. Magnes Co. 44 Berry St., San Francisco.

**ANCHOR WEBBING CO.**, Pawtucket, R. I.—Western Fibrous Glass Products Co., 739 Bryant St., San Francisco, and 4423 Fruitland, Los Angeles.

**ANCHOR WIRE CORP.**, 183 Jamaica Ave., Jamaica 3, N. Y.—Victor Hannon Co., 606 S. Hill St., Los Angeles 14; 681 Market St., San Francisco 5; and 1502 Olive Way, Seattle 22.

**ANDERSON ELECTRIC CORP., 700 North 44th St. Birmingham, Ala.—Hubert James Jr., Western Regional Sales Mgr., 519 California St., San Francisco 4. Representatives: Wrathall and Krusi, 1048 Monadnock Bldg., San Francisco 5; Industrial Eng & Equipment Corp., 2975 Wilshire Blvd., Los Angeles 5; Muth-Richards Co., 1804 Bush Place Seattle 44; Clarence W. Silver Co., 550 W. 7th South St., Salt Lake City 4; Hamilton Associates 1236 Elati St., Denver 4; Andrew L. Polich, Inc. 734 N.W. Glisan St., Portland 9; Utilities Supply 419 S. 7th, Phoenix; Makinney (Hawaii), 810 South St., Honolulu, Hawaii. Aircraft & Missile Industries only: Calrepco, 1417 Georgia, Los Angeles. (See ad, second cover)**

**ANDERSON MFG. COMPANY**, Albert & J. M., 289 A St., Boston, Mass.—Industrial Eng. & Equip Corp., 2975 Wilshire Blvd., Los Angeles; North Pacific Electric Agencies, 905 Lloyd Building Seattle.

**ANESITE CO.**, Plastic Pipe & Tube Div., P. O. Box 135, Santa Barbara, Calif.—Line Materials Industries, 6490 E. Fleet St., Los Angeles 22; E. 3303 Ferry St., Spokane 24; 360 Shaw Rd., So. San Francisco; 1333 N. W. 12th Ave., Portland; and 1220 W. Nickerson, Seattle.

**ANSONIA WIRE & CABLE CO.**, 111 Martin St., Ashton, R. I.—J. T. Hill Co., 420 S. Fine St., San Gabriel, Calif.; 1864 Bacon St., San Diego 7 Calif.; and 1682 Laurel St., San Carlos, Calif.; W G. Mills Co., S. 1206 McClellan St., Spokane 6 Jack Pruzan Co., 109 Jackson, Seattle.

**ANTENNA SPECIALISTS**, 12435 Euclid Ave., Cleveland, Ohio—Don H. Burcham Co., 510 N. W. 19th Ave., Portland, and 422 1st Ave. West, Seattle C. A. Hansen, 1406 S. Grand Ave., Los Angeles Wm. Logan, 1477 S. Mayfair, Daly City, Calif.

**ANTHONY CO., F. M.**, 773 University Ave., Berkeley 2, Calif.—John A. Ware & Associates, 301 W "G" St., San Diego 1; Yetter Sales, 10262 San Pablo Ave( El Cerrito, Calif.; Gilson Supply Co. 1148 East 18th St., Oakland, and Heidt Equipment Co., 1600 East 12th St., Oakland; Northern Valley Ind. Equip. Co., P. O. Box 162, Oswego, Ore.

**APPLETON ELECTRIC CO.**, 1701 W. Wellington, Chicago 13, Ill.—Branch Offices: 1485 Bayshore Blvd. San Francisco; 6450 E. Bandini Blvd., Los Angeles 1033 Sixth Ave., Seatttle; 1358 S. Milwaukee St. Denver; field engineers located at Sacramento San Diego, Portland, Salt Lake City.

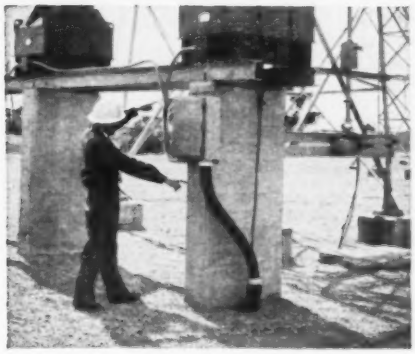
**APPLETON RUBBER CO.**, 57 Cornwall St., Boston 30 Mass.—George Kraft Co., 1501 N. W. Kearney St. Portland; Keeler White Co., 615 Seventh St., San Francisco; Hayjax Co., 436 Colyton St., Los Angeles.

**APPLIANCE BUILDING CO. INC.**, 1120 West Idaho Seattle, Wash.—Cliff C. Brown, 4107 W. Holden St., Seattle; Calvin B. Dawson, 9015 N.E. 3rd Vancouver, Wash.; L. B. Enoch & Assoc., 5961 S. Normandie Ave., Los Angeles; S. M. Purcell Box 503, Medford, Ore.; Step Sales Agency, 1326 Santa Fe Dr., Denver; Neil W. Wilson, 1331 T St. Sacramento, Calif.; Enco, Box 175 Murray Branch Salt Lake City; Ernie Stoppelman, Rt. 1 Box 581 Stanwood, Wash.

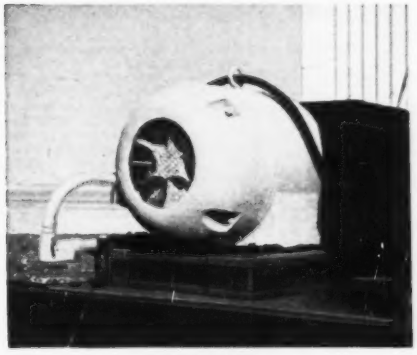
**AQUA-MATIC INC.**, 2412 Grant Ave., Rockford, Ill.—Montgomery Bros., 1122 Howard St., San Francisco; 1053 S. Olive, Los Angeles; 1632 N. W Johnson, Portland; 911 Western Ave., Seattle; 5105 N. Hawthorne, Spokane.

**ARCAIR CO.**, P. O. Box 4227, Bremerton, Wash.—ABSCo., Inc., 4600 W. Jefferson, Los Angeles Calif. Welding and Equipment Co., 432 Bryant St., San Francisco; Arizona Weld. Equipment, 415 South Seventh, Phoenix; Industrial Specialties, 940 S. E. 7th Ave., Portland; Victor Equipment Co. 840 Folsom St., San Francisco, and 3821 Santa Fe Los Angeles; Heidt Equipment, 1600 E. 12th St., Oakland; General Distributing Co., 711 10th Ave. So., Great Falls, Mont.; Gibson Welding Supplies East 218 Trent Ave., Spokane 8; Norco, 1552 River St., Boise, Ida.; Sierra Oxygen Co., 1500 E. 2nd St., Reno; Western Oxygen Inc., 2447 6th Ave. So., Seattle 4; Whitmore Oxygen Co., 430 E. So. Temple St., Salt Lake City.

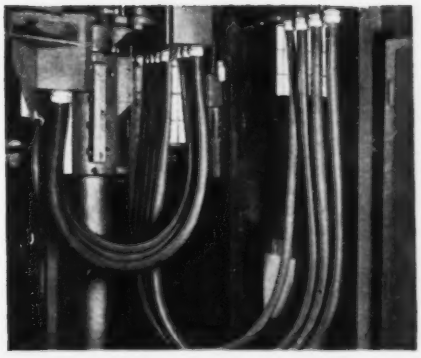
FOR WET SPOTS



MISALIGNMENT



OUTDOORS



MOVING CONNECTIONS

# ON THE ROUGHEST JOBS SEALTITE PROTECTS WIRING

**SEALTITE** is a flexible *and* liquid-tight electrical conduit. It gives maximum protection to your wiring when it must connect moving parts, absorb vibration, follow machine contours, flex into U-bends, be easily maintained or be safeguarded between misaligned outlets.

It is being used successfully in wet locations, in tunnels, power plants, steel mills, canneries, chemical industries and in many outdoor applications. Sealtite comes in four types:

**TYPE U. A. — TYPE C. S. A.** Specifications for Type U. A. (Underwriters' Laboratories Listed) and Type C. S. A. (Canadian Standards Association Approved). Construction: flexible galvanized steel core, positive ground and tough extruded outer cover.

| TRADE SIZE | INSIDE DIAMETER | | OUTSIDE DIAMETER | | Appr. Inside Bend Diam. | Approx. Shipping Wgt. (Lbs.) Per Std. Carton |
|---|---|---|---|---|---|---|
| (Ins.) | Min. | Max. | Min. | Max. | (Ins.) | |
| 3/8 | .484 | .504 | .690 | .710 | 6 | 60 |
| 1/2 | .622 | .642 | .820 | .840 | 7 | 70 |
| 3/4 | .820 | .840 | 1.030 | 1.050 | 10 | 70 |
| 1 | 1.041 | 1.066 | 1.290 | 1.315 | 12 | 90 |
| 1 1/4 | 1.380 | 1.410 | 1.630 | 1.660 | 15 | 70 |

**TYPE E. F.†** (Extra Flexible)—for machine tools and industrial equipment. (Meets J.I.C. requirements). Available in black, gray or white.

**TYPE H. C.** (Hot-Cold)—for temperatures from +221° F to −40° F.

| TRADE SIZE | INSIDE DIAMETER | | OUTSIDE DIAMETER | | Appr. Inside Bend Diam. | Approx. Shipping Wgt. (Lbs.) Per Std. Carton |
|---|---|---|---|---|---|---|
| (Ins.) | Min. | Max. | Min. | Max. | (Ins.) | |
| 3/8 | .485 | .505 | .690 | .710 | 4 | 60 |
| 1/2 | .620 | .640 | .820 | .840 | 5 | 60 |
| 3/4 | .815 | .835 | 1.030 | 1.050 | 5 | 70 |
| 1 | 1.030 | 1.055 | 1.290 | 1.315 | 7 | 60 |
| 1 1/4 | 1.370 | 1.395 | 1.635 | 1.660 | 8 | 80 |
| 1 1/2 | 1.575 | 1.600 | 1.875 | 1.900 | 11 | 55 |
| 2 | 2.020 | 2.045 | 2.350 | 2.375 | 14 | 75 |
| 2 1/2 | 2.480 | 2.505 | 2.850 | 2.875 | 19 | 105 |
| 3 | 3.070 | 3.100 | 3.470 | 3.500 | 23 | 80 |
| 4 | 4.000 | 4.040 | 4.460 | 4.500 | 27 | 105 |

*Commercial tolerances apply on above figures.*

**ELECTRICAL WHOLESALERS** stock Sealtite. Buy it in long, random lengths on nonreturnable wooden reels, at no extra cost. Available in sturdy cartons that are easier to store and carry to the job. Liquid-tight connectors also are available from wholesalers' stocks. For information write: Anaconda Metal Hose Division, The American Brass Company, Waterbury 20, Connecticut. In Canada: Anaconda American Brass Ltd., New Toronto, Ontario.

†Pat. applied for 50142GR

**CUTAWAY SECTION** of Type U.A. Sealtite shows tough polyvinyl chloride jacket over flexible galvanized steel core. Copper conductor wound spirally inside conduit gives positive ground.

***Insist on the conduit marked***

**SEALTITE®**

***Flexible, Liquid-Tight Conduit***

***an* ANACONDA® *product***

**ARCOS CORP.**, 1500 S. 50th St., Philadelphia, Penn. —Branch Office: 123 S. Santa Fe Ave., Los Angeles 12; Industrial Supply Co., 1647 N. 2nd St., Albuquerque; Consolidated Welding Supply, 747 Grand Ave., Phoenix; General Distr. Co., 711 10th Ave. S., Great Falls, Mont.; Bay Cities Welding Equip. Co., 2549 Lincoln Blvd., Venice, Calif.; Western Supply Co., 2334 N. Grand Ave., Pueblo, Colo.; Whitmore Oxygen Co., 430 S. E. Temple St., Salt Lake City; Allan P. James Co., Inc., 430 Ninth St., San Francisco; Fresno Oxygen Co., P. O. Box 1427, Fresno, Calif.; A & R Equipment Co., 5498 Mission Blvd., Ontario, Calif.; United States Welding Works Co. Inc., 1301 Walnut St., Denver; New Mexico Welding Supply Co., 633 W. Mermod, Carlsbad, N. M.; Industrial Air Products Co., Highway 99 N., Medford, Ore.; 3200 N. W. Yeon Ave., Portland; 520 W. Columbia St., Kennewick, Wash.; 1900 4th Ave. S., Seattle; E. 4230 Trent, Spokane; and 2325 S. 1st St., Yakima, Wash.

**ARIEL DAVIS MFG. CO.**, 3687 S. State St., Salt Lake City, Utah—Ariel Davis Supply Co., 122 Social Hall Ave., Salt Lake City; Louis D. Black, 2220 Ocean View Ave., Los Angeles 57; A. L. Perdue, 4305 Ravenswood Ave., Sacramento; Dee Swenson, Box 198, Butte; Lee Hayes, 322 Wall St., Las Vegas, Nev.; Barney O. Hartley, P. O. Box 4381, Phoenix; P. W. Craig, 1016 1st Ave. S., Seattle; J. W. Coffman, 735 Bank of America Bldg., San Diego; Stewart Holmes, 5923 Drumheller, Spokane; L. V. Walker, 542 Thornton Ave., San Francisco; L. S. Reed, 1018 Lawrence St., Denver; Bruce-Emmett Co., 830 S. E. Alder St., Portland; Matt Cabot & Assoc., P. O. Box 3708, Honolulu, T. H.

**ARK-LES SWITCH CORP.**, 51 Water St., Watertown, Mass.—Montgomery Brothers in following cities: 1122 Howard St., San Francisco; 1053 S. Olive St., Los Angeles 15; 1632 N. W. Johnson St., Portland, and 911 Western Ave., Seattle 4; 5103 N. Hawthorne, Spokane

**ARMATURE COIL EQUIPMENT, INC.**, 2605 Vega Ave., Cleveland, Ohio—Insulation and Wires, Inc., 450 Alabama St., San Francisco; 6415 E. Fleet St., Los Angeles; 1112 N. W. 19th Ave., Portland.

**ARRO EXPANSIONP BOLT CO.**, P. O. Box 388 Dept. U, Marion, Ohio—Regional Sales Co., 1719 Boulder, Denver; Tom G. Blunden, Bellevue, Wash.; George P. Wilcox Co., 4802 Loma Vista Ave., Los Angeles 58; E. James Smith & Co., 1485 Bayshore Blvd., San Francisco 24.

**ARROLET CORP.**, Ft. of Bower St., Montgomery, Pa. —Smith-Thomas Co., 568 1st Ave., Seattle; James Chamberlin, 211 W. Shannon, Spokane; Gordon Hooper, 4333 N. E. 54th St., Portland; J. Wallach, 329 Winston St., Los Angeles.

**ARROW CONDUIT & FITTINGS CORP.**, 129 30th St., Brooklyn 32, N. Y.—J. Wallach, 436 Colyton Ave., Los Angeles.

**ARROW FASTENER CO., INC.**, 1 Junius St., Brooklyn, N.Y.—J. M. Davis Corp., 170 North Robertson Blvd., Beverly Hills, Calif.

**ARROW-HART & HEGEMAN ELECTRIC CO.**, 103 Hawthorne St., Hartford, Conn.—Branch Offices: 120 S. Anderson, Los Angeles, and 277 Pennsylvania Ave., San Francisco 10; Everett T. Vonier Inc., 1160 Elati, Denver; H. A. Hebel, 1117 S.W. Westwood Court, Portland; H. L. Williams, 1732 4th Ave. S., Seattle; Wm. F. Wolf, Jr., Box 1088, Rt. 1, Poway, Calif.

**ARTCRAFT LIGHTING CO., INC.**, 248 McKibbin St., Brooklyn 6, N. Y.—James Mundstock, 417 Market St., San Francisco 11; M. Levin Co., 2438 S. W. 4th Ave., Portland; Gregg Cloos, 977 Jackson St., Denver, Colo.

**ART METAL CO.**, 1814 E. 40th St., Cleveland 3, Ohio —The Darger Co., 211 S. Second W. St., Salt Lake City; Heinz & Wells, Marina Mart Bldg., Seattle 9; William A. McGuire, 164 S. Central Ave., Los Angeles; John A. Schulter, 411 Weatherly Bldg., Portland; Dan H. Radke Co., 754 Natoma St., San Francisco; Roy Wendling Co., P. O. Box 3721, Phoenix.

**ART SPECIALTY CO.**, 3720 N. Milwaukee Ave., Chicago, Ill.— Sales Associates, 11111½ S. La Cienga, Los Angeles; State Elec. Supply, 241 10 Street, Oakland; S. F. Lighting Co., 1147 Howard St., San Francisco; Incandescent Supply Co., 833 E. 3rd, Los Angeles, and 647 Mission St., San Francisco; Hollywood Elec. Supply Co., 6820 Romaine St., Los Angeles;1 Fox Lamp & Fixture Co., 820 N. W. Glisan, Portland; Keuffel & Esser, 1327 S. Olive St., Los Angeles, and 30 Second St., San Francisco.

**ARTOLIER CORP.**, 139 Main St., Lodi, N. J.—W. Keene Jackson, 4612 Rockland Place, La Canada Calif.

**ARVIN INDUSTRIES, INC., Big 4 R. R. & 13th St., Columbus, Ind. Branch: Earl White, 2814 164th Ave. S. E., Portland; D. E. Sanford, 1355 Market St., San Francisco; Floyd Yudelson, 3142 Wilshire, Los Angeles.**

**ASHEVILLE-SCHOONMAKER MICA CO.**, 900 Jefferson Ave., Newport News, Va.—Marwood Limited (in following cities), 357 Ninth St., San Francisco; 320 East Third St., Los Angeles; 1714 First Ave. So., Seattle 4; 209 South West First Ave., Portland.

**ASSOCIATED MANUFACTURERS & DISTRIBUTORS CORP.**, 5015 S.E. Haig, Portland, Ore. — (See Amadco.)

**ASPLUNDH CHIPPER CO.** (See Utilities Line Construction Co.)

**ASSOCIATED RESEARCH, INC.**, 3789 W. Belmont Ave., Chicago 18, Ill.—California Instrument Co., 351 10th St., San Francisco; Brenner-Fiedler & Associates Inc., 7563 Melrose Ave., Los Angeles 46; Seatronics, Inc., 1806 Bush Place, Seattle.

**ATKOMATIC VALVE CO., INC.**, 545 West Abbott St., Indianapolis, Ind.—Brenner-Fiedler & Assoc., 7563 Melrose Ave., Los Angeles 46; Fred G. Greaves Co., 418 Eighth Ave. N., Seattle, and 499 Concord Bldg., Portland; Claude B. Smith Co., 844 E. 12th St., Oakland; Rocket Components Co., 2950 S. Fox St., Englewood, Colo.

**ATLANTIC CONDUIT FITTINGS CO.**, 450 Western Ave., Boston 34, Mass.—Frank H. Bran Co., 607 E. 6th St., Los Angeles; H. M. Denny Co., 111 W. Harrison, Seattle.

**ATLAS BRASS FOUNDRY**, 1901 Santa Fe Ave., Los Angeles 21, Calif.—Bearing Specialty Co., 2424 Webster St., Oakland, and 128 Texas St., San Francisco; Industrial Specialties Co., 940 S. E. 7th Ave., Portland; Tinling & Powell, Inc., E. 706 Sprague Ave., Spokane; Colorado Ind. Supply Co., 1620 Wazee St., Denver; Pacific Northwest Industries, Inc., 4529 Airport Way, Seattle; George M. Philpott Co., 1060 Bryant St., San Francisco; 2928 Poplar St., Oakland, and 6260 Folsom Blvd., Sacramento; El Paso Machine & Steel Works Inc., 1600 E. 4th St., El Paso, Tex.

**ATLAS LIGHTING**, 825 W. 11th St., Los Angeles, Calif.

**ATLAS SAFETY EQUIPMENT CO., INC.**, 173-9 N. 10th St., Brooklyn, N. Y.—Western Fire Equipment Co., 69 Main St., San Francisco; J. J. Lawton, 2517 11th Ave., Los Angeles 18.

**ATOMICS INTERNATIONAL**, Division of North American Aviation, Inc., Box 309, Canoga Park, Calif.

**AURAND MFG. & EQUIPMENT CO.**, 1210 Ellis St., Cincinnati, Ohio—Bay Cities & Industrial Supply Co., Transport Bldg., San Francisco; T. H. Pitt Co., 371 11th St., San Francisco.

**AUTO HOT-STICK RENTALS, INC.**, 438 W. Laurel St., Compton, Calif.

**AUTOMATIC CONTROL CO.**, 995 University Ave., St. Paul, Minn.—R. E. LeRiche, 422 Smith Tower, Seattle; Peterson Co., 4949 Colorado Blvd., Denver; Arnold Ambrosini, 420 Market St., San Francisco; Hundley Co., 3282 Fletcher Dr., Los Angeles; Charles G. Davis, Box 1217, Albuquerque, N. M.

**AUTOMATIC CONTROLS CORP.**, 2390 Winewood, Ann Arbor, Mich.—Earl E. Eckstrom, 2601 Second Ave., Eric F. Chemnitz, 1096 Yerba Buena Ave., Emeryville, Calif.

**AUTOMATIC DEVICES, INC.**, P. O. Box 5, Adie Road, Maryland Heights, Mo. — Eugene E. Warrington, Western Dist. Mgr., 1258 Leyden St., Denver; Independent Lumber Co., 101 S. Spruce St., Grand Junction, Colo.; Montana Powder & Equip., 12 E. Lawrence, Helena, Mont.; Threewit-Cooper Cement Co., 2900 Walnut St., Denver; Arnold Machinery Co., 433 2nd South St., Salt Lake City.

**AUTOMATIC ELECTRIC SALES CORP.**, Northlake, Ill.—Branch Offices: Automatic Electric Sales, 4415 W. Pico Blvd., Los Angeles 19; 55 New Montgomery St., San Francisco 5; 644 Central Bldg., Seattle; 2360 N. W. Quimby St., Portland 10.

**AUTOMATIC SIGNAL DIV.**, Eastern Industries, Inc., Regent St., E. Norwalk, Conn.—W. E. DeYoung, Dist. Sales Mgr., 532 Veteran Ave., Los Angeles 24; Econlite Corp., 8900 Bellanca Ave., Los Angeles 45; 389 Clementina St., San Francisco 3, and Lloyd Bldg., 6th & Stewart St., Seattle; William Z. Harrison Co., 436 Atlas Bldg. Salt Lake City 1; Technical Service, 730 Haines Ave., N. W., Albuquerque, N. M.

**AUTOMATIC SWITCH COMPANY**, Florham Park, N. J.—Branch Office: 1233 Goodrich Blvd., Los Angeles 22; Clyde P. Elliott, 661 Delaware St., Denver; Standard Electric Sales, 1731 1st Ave. S., Seattle; Steel & Engineering Products, P. O. Box 3626, El Paso, and 1609 2nd St., N. W., Albuquerque; Paul S. Everly Company, 550 9th St., San Francisco; Barney Hartley, 708 W. Willetta, Phoenix.

**AUTOMATIC TIMING & CONTROLS, INC.**, King of Prussia, Pa.—Representatives: Time-Trol, Inc., 5755 Van Nuys Blvd., Van Nuys, Calif. Distributor: Calif. Wholesale Elec. Co., 2548 Yates Ave., Los Angeles 22; Pacific Scientific Co., 760 Harrison St., San Francisco, 1218 S.E. 7th Ave., Portland, 6280 Chalet Dr., Bell Gardens, Calif., and 421 Michigan St., Seattle; A. J. Nelson Co., Box 1871 Salt Lake, Box 5502, Denver, Box 904, Billings Mont., and Box 938, Albuquerque; Arnold Ambrosini, 420 Market St., San Francisco.

**AUTOTRON, INC.**, 3629 N. Vermillion St., Danville Ill.—Walter W. Corman, 7432 W. 80th St., Los Angeles 45; James M. Krotozyner, 544 Market St., San Francisco 4; C. B. Parsons & Co., 3028 First Ave., Seattle 1.

**B & M ELECTRIC CORP.**, 168 7th St., Brooklyn 15 N. Y.—Harris-Koetke Sales Co., 204 E. Hillsdale Blvd., San Mateo, Calif.; R. L. Stone Sales Co. 9015 Wilshire Blvd., Beverly Hills, Calif.; Paramount Agencies, North 12 Lee St., Spokane 24 Wash.

**B/W CONTROLLER CORP.**, 2200 East Maple, Birmingham, Mich.—Geraty Eng. Specialties, 380 Celusa Ave., Berkeley 7, Calif.

**BABCOCK & WILCOX CO.**, 161 E. 42nd St., New York 17, N. Y.—C. C. Moore & Co. Engineers, 450 Mission St., San Francisco 5, Smith Tower, Seattle 1111 Wilshire Blvd., Los Angeles 17, Failing Bldg., Portland 4, Stearns-Roger Mfg. Co., 660 Bannock St., Denver 4.

**BAHNSON COMPANY, THE**, Winston Salem, N. C.—J. E. Edstrom, 1224 S. W. Morrison, Portland; General Combustion Equip. Co., 67 Beale St., San Francisco 5; Air Equip. Sales Co., 3020 Glendale Blvd., Los Angeles 39; Reliable Equip. Co., 1515 E. San Antonio St., El Paso; CBA Co., 1480 Hoyt St., Denver.

**BAILEY METER CO.**, 1050 Ivanhoe Rd., Cleveland Ohio—Branch Offices: V. A. Rumble, 55 New Montgomery St., San Francisco; J. W. Roth, 816 S Atlantic Blvd., Monterey Park, Calif.; A. L. Danielsen, 1506 Kearney St., Denver; K. E. Atwood, 200 Broadway, Seattle; L. F. Monahan, 2664 Capricorn Way, Salt Lake City; P. B. Smith, 825 N.E. 131st Place, Portland.

**BAKELITE CO.** (See Union Carbide Plastics Co.)

**BAKER-BARKON COMPANY**, 1335 S. W. Morrison St. Portland, Ore.—Branch: R. E. Baum, 1085 Monadnock Bldg., San Francisco; Seattle Lighting Fixture Co., 222 Second Ave., Seattle.

**BAKER-RAULANG CO.**, (See Baker Industrial Trucks.)

**BAKER INDUSTRIAL TRUCKS**, Div. of OTIS Elevator Co., 8000 Baker Ave., Cleveland, Ohio—Elder & Co., 333 7th St., San Francisco 3 and 2496 S. Railroad Ave., Fresno; Green-Benny Co., 4180 East Noakes St., Los Angeles 23; Charles Industrial Sales Co., 5201 First Ave. S., Seattle 8; Mechanical Equipment Co., 222 S. Hinton Ave., Scottsdale, Ariz.; Edward F. Taylor Co., 1237 Shoshone St., Denver 4.

**BALDOR ELECTRIC CO.** 4353 Duncan Ave., St. Louis Mo.—E. P. Denham Co., 293 26th St., Oakland 12; R. S. Boreham Co., 1206 So. Maple Ave., Los Angeles; H. C. Miller, 4546 N. E. Alberts St., Portland; E. L. Parsons Co., 600 16th St., Oakland 12; Merrill F. Ogden Associates, 12240 6th Ave., N W., Seattle 77.

**BALDWIN-LIMA-HAMILTON**, Eddystone Div., Philadelphia 42, Pa.—Pelton Division, 2929 Nineteenth St., San Francisco 10. Branches in Los Angeles Portland, Seattle, Denver and Salt Lake City.

**BARBER-COLMAN CO.**, 1300 Rock St., Rockford, Ill —Branch Offices: 190 East Glenarm, Pasadena 2, Calif, and 2311 Kettner Blvd., San Diego; 1210 S. E. 7th Ave., Portland 14; Merrill N. Musgrave Co., 2019 Third Ave., Seattle 1, and 215 Hutton Bldg., Spokane; E. B. Bomar, 914 W. Madison St., Phoenix; Automatic Control & Equip. Co., 5750 Pecos St., Denver 11; Control & Equip. Co., 5106 Grand Ave. N. E., Albuquerque; Paul E. Benton Co., 220 West Third South, Salt Lake City; Reliable Equipment Co., 1515 E. San Antonio, El Paso, Tex.; G. J. Yamas Co., 667 Howard St., San Francisco 5, 1621 E. Belmont, Fresno, and 3730 Broadway, Sacramento 17; Sun Supply So., 708 S Main, Las Vegas, Nev.; Air Equip. Co. 1607 Second St., Albuquerque; Mensdorfer & Assoc., 8468 Melrose Pl., Los Angeles.

**BARBER-COLMAN CO.**, Wheelco Instruments Div. Rockford, Ill.—E. B. Bomar Sales, Inc., 914 W Madison St., Phoenix, Ariz.; 190 E. Glenarm St. Pasadena, Calif.; Jay Perrin Co., 1515 E. 19th St. Bakersfield; G. J. Yamas Co., 1621 E. Belmont, Fresno; G. J. Yamas Co., 3730 Broadway, Sacramento, 2311 Kettner Blvd., San Diego, and 667 Howard St., San Francisco; Automatic Control & Equipment Co., 5750 Pecos St., Denver, Colo.; Sun Supply Co., 708 S. Main St., Las Vegas, Nev.;

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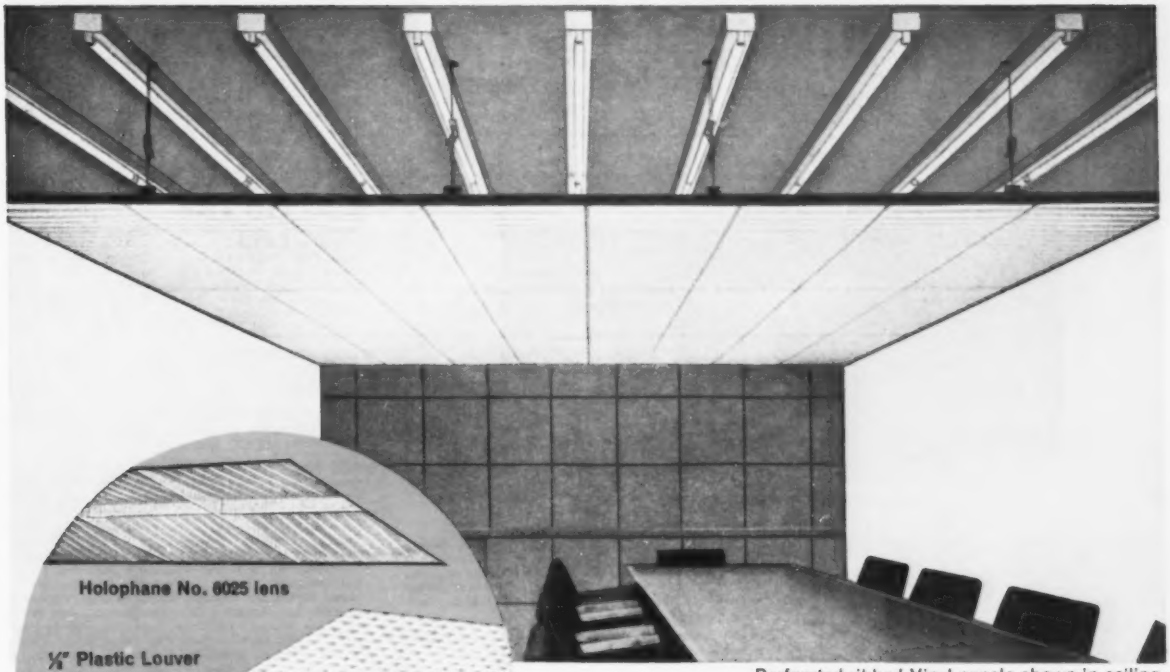

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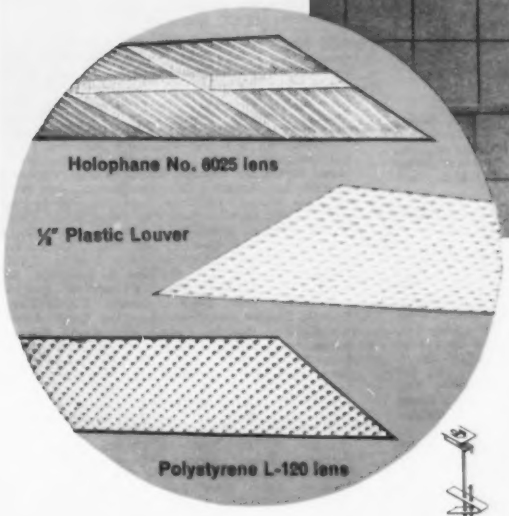

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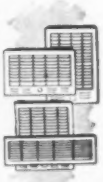

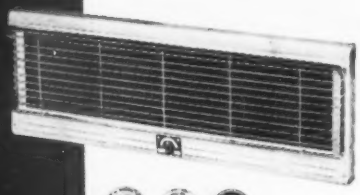

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**BARBER-GREENE CO.**, 400 N. Highland, Aurora, Ill. —Coast Equipment Co., 444 8th St., San Francisco, Portland and Seattle; Carrington Co., 91 Columbia, Seattle; Columbia Equipment Co., Spokane; Lang Constr. Equip. Co., Salt Lake and Boise; Pioneer Machinery Co., 525 Kietske Lane, Reno; Keremi Tractor & Equip. Co., Cheyenne and Casper; Western Constr. Equip. Co., Billings and Great Falls, Santa Fe Equip. Co. Inc., 3000 Santa Fe Ave., Los Angeles.

**BARCALO MFG. CO.**, 225 Louisiana St., Buffalo. John W. Archibald, P. O. Box 647, Boulder, Colo.; C. A. Holzmann, 2227 N. E. 137th Ave., Portland 20; Wright & King, 1422 Santee St., Los Angeles 15 and Maury S. Mittleman & Assoc., 674th S Lafayette Park Pl., Los Angeles 57.

**BARKELEW ELECTRIC MFG. CO.**, 1905 Columbia Ave., Middletown, Ohio—Electrical Specialty Co., in following cities: 158 11th St., San Francisco, 2406 First Ave. So., Seattle, and 2026 Arapahoe Denver. Angus-Campbell, Inc., 4417 S. Soto Street Los Angeles, and P. O. Box 232, Phoenix.

**BARKSDALE VALVES**, 5125 Alcoa Avenue, Los Angeles, Calif. Branch Office: 861 San Bruno West, San Bruno, Calif.; Cone & Wallace, 1325 S. 26th St., Phoenix; Bailey Equip. Co., 3856 California St., San Diego; Tower Equip. Co., P. O. Box 158, Mercer Island, Wash.; Industrial Materials Inc., 2855 Walnut St., Denver; Process Equip. Co., 2458 W. 29th Ave., Denver.

**BAR-MOTIVE PRODUCTS, INC.**, 440 Peralta, San Leandro, Calif.

**BARRY CONTROLS, INCORPORATED**, 700 Pleasant St., Watertown 72, Mass.—Barry Controls Inc., West Div., 2821 N. Naomi St., Burbank, Calif.

**BARTH CORPORATION, THE, 12650 Brookpart Rd., Cleveland, Ohio—Ed B. Schack & Co., 2218 First Ave., Seattle 1; Matzinger-Johnson Co., 1329 Willow St., Los Angeles; W. B. Imholt Co., 275 Brannan St., San Francisco.**

**BARTLETT MANUFACTURING CO.**, 3053 E. Grand Blvd., Detroit 2, Mich.—Hughson & Merton in following cities: 3209 Glendale Blvd., Los Angeles 39, 1270 Bush St., San Francisco 9, 910-B Elliott Ave. W., Seattle 99 and 412 Crandall Bldg., Salt Lake City 1.

**BARTON INSTRUMENT CORP.**, Monterey Park, Calif. —Beillove Co., 420 Market St., San Francisco.

**BASHLIN COMPANY, W. M.**, W. Pine Street, Grove City, Penna.—Guardian Safety Equipment Co., 7223 So. Main St., Los Angeles; Sanderson Safety Supply Co., 1423 S. E. Hawthorne Blvd., Portland; Universal Safety & Fire Equip. Co., Inc., 727 So. West Temple, Salt Lake City; M. B. Houghton Co., 2020 Grand Ave., Phoenix; Tucson Electric Supply Co., 523 E. Tenth St., Tucson; H. C. Guire & Co., 715 S. York, Denver 9; Jack Pruzan Co., 109 Jackson St., Seattle 4; Pole-Line Distributing Co., 405 West 13th South, Salt Lake City; Western Hardware & Tool Co., 122 Tenth St., San Francisco.

**BATAVIA METAL PRODUCTS CORP.**, 1252 Liberty St., Batavia, N. Y.—American Equipment & Body Co., 2315 East 4th St., Los Angeles; Nelson Truck Equip. Co., Inc., 128 Westlake No., Seattle; Utility Body Co., 1530 Wood St., Oakland, Calif.; Truck Equipment Co., 3963 Walnut St., Denver, Colo.

**BAXCO CORP.**, 541 Pittock Block, Portland 5, Ore.

**BAXTER CO., J. H.**, 120 Montgomery St., San Francisco 4, Calif.—Branch Offices: Portland, 541 Pittock Block; Eugene, Ore., P. O. Box 752; Renton, Wash., P. O. Box 568, and Los Angeles, Calif., 3450 Wilshire Blvd.

**BAYLEY BLOWER CO.**, 1817 S. 66th St., Milwaukee, Wis.—Hess Greiner and Polland, 3440 Sunset Blvd., Los Angeles 15; Don A. Hewitt, 1077 Cragmont, Berkeley 8, Calif.

**BEAVER PIPE TOOLS, INC.**, 310 Dana St., N. E., Warren, Ohio—Mr. Al Newell, 8101 Variel Ave., Canoga Park, Calif.; Charles A. Davis, 2810 Olive St., Denver 7; Richard Rook, 723 N. Kay St., Tacoma 3, Wash.

**BECKETT-HARCUM CO.**, 1087 Wayne Road, Wilmington, Ohio—Airdreco Corp., 2863 Telegraph Road, Los Angeles 22; H. E. Linney Co., 5801 College Ave., Oakland 8, Calif.; H. F. Soderling Co., 1729 First Ave. So., Seattle.

**BECKMAN SCIENTIFIC AND PROCESS INSTRUMENTS DIV.**, 2500 Fullerton Road, Fullerton, Calif. Branch offices: 2200 Wright Ave., Richmond Calif., and 10609 N.E. 18th St., Bellevue, Wash.

**BEEDE ELECTRICAL INSTRUMENT CO., INC.**, Penacook, N. H.—Lobell-Warren Associates, 1485 Bayshore Blvd., and Los Angeles; Allen I. Williams 2263 S. Albion St., Denver 22.

**BELDEN MFG. COMPANY**, 415 S. Kilpatrick, Chicago Ill.—J. Reed, 13465 Margate, Van Nuys, Calif., Harold W. Hofman (Dist. Mgr.) Box 2922, Termina Annex, Los Angeles; R. E. Greenwood, 220 E Rosa Ave., La Habra, Calif.; Sam Abernethy 11030 S.E. 27th Place, Bellevue, Wash.; Jim Manfrin, 1573 Risdon Road, Concord, Calif.; Fibre Metal Pacific Inc., 7332 S. Garfield Ave., Bell Gardens, Calif.; Electric Motor Supply, 1646 Blake St., Denver.

**BELL ELECTRIC COMPANY**, 5735 South Claremont Ave., Chicago 36, Ill.—J. H. Kay 10531 S. Julius Ave., Downey, Calif.; A. J. Nelson Co., P. O. Box 5502, Denver; Neil Winikoff, 7554 44th N. E. Seattle, Wash.; Pacific Elec. Sales, 140 S. E. 28th Ave., Portland.

**BENJAMIN ELECTRIC MFG. CO., Sub. of Thomas Industries, Inc., Des Plaines, Ill. — North Pacific Division: O. C. Westberg, Sales Manager, 1529 Rollins Road, Burlingame; H. F. Christensen, 42 Westbrook Ave., Daly City, Calif.; D. D. Moore, 1661 Claremont Dr., San Bruno, Calif.; F. A. Farley, 4725 S. W. 18th Pl., Portland; H. R. Huber, 1420 W. Lake Sammanish Parkway, N. E., Bellevue, Wash.; L. M. Slusser, 318 Dooly Bldg., Salt Lake City, Utah; James H. Blinn Co., 841 Delaware St., Denver, Colo.; R. Patrick, 4027 N. Elgin, Spokane, Wash.; D. Watson, 4719 Pasadena, Sacramento 21, Calif. Southern Pacific Division: A. O Grotenhuis, Sales Manager, 6423 E. Washington Blvd., Los Angeles 22; J. D. Barton, 16502 Lawnwood St., La Puente, Calif.; Rollo D. Hittle, 16408 Septo St., Sepulveda, Calif.; R. W. Huizinga, 5142 Caywood, San Diego 17; R. R. Jones, 3745 Mayfair Dr., Pasadena; J. D. Long, 615 Jasmine Ave., Corona del Mar, Calif. (See ad, p. 9)**

**BENJAMIN REEL PRODUCTS, INC.**, 10700 Broadway Cleveland 25, Ohio—J. H. McGregor (GMG Sales), 2315 S. Campbell, Alhambra, Calif.; H. E. Gillson (GMG Sales), 4680 Alpine Rd., Portola Valley, Calif.; Roy E. Ryberg & Assoc., 2522 35th Ave W., Seattle 99; Michael & Frye, Inc., 3319 W 36th Ave., Denver 11.

**BERKO ELECTRIC MFG. CORP., 212-40 Jamaica Ave., Queens Village, L. I., N. Y.—Representatives: Robert Thallon, P. O. Box 937 Sta. A, San Mateo, Calif.; Morton Kandell, 36-13 Meadville Dr., Sherman Oaks, Calif.; Walter Yund, 3229 E. 87th, Seattle; Kenneth B. Schumann, 1073 Galapago, Denver 4, and P. O. Box 6, Bountiful, Utah.** Distributors: North Coast Mercantile, Eureka, Calif., California Wholesale Electric, Los Angeles; Hollywood Wholesale Electric, and Supreme Wholesale Electric, Los Angeles; Graybar Electric, and Westinghouse Electric, Oakland, Calif.; Tri-County Electrical, Palm Springs and San Bernardino, Calif., Valley Electric, Redding, Sacramento, and Stockton, Calif.; Coast Electric, San Diego, Calif.; Empire Supply, San Francisco and Visalia, Calif., National Electric, and Phillips & Edwards, San Francisco; Frontier Electric, Poindexter Electric, and Weiner Bros. Electric, Denver, Colo.; Livran Electric, Denver and Grand Junction, Colo.; American Electric, Pueblo, Colo.; Afton-Lemp Electric, Boise, Ida.; Electrical Contractors Supply, Idaho Falls and Pocatello, Idaho; Glacier State Electric, Great Falls and Billings, Mont.; Monitor Distributors, Butte, Mont.; Hub Electric, Missoula, Mont.; Kitchen Electric Supply, and Western Electrical, Reno, Nev.; Electric Supply, J. Korber & Co., State Electric, and Westinghouse Electric, Albuquerque, N. M.; Portland Electric & Plumbing, Portland; Robert Electric, Orem; Eastern Utah Electric, Price, Utah; Graybar Electric, and United Electric, Salty Lake City; Bellingham Supply, Bellingham, Wash.; Bean Electric, Everett, Seattle and Wenatchee, Wash.; Columbia Electric, Graybar Electric, and Palmer Electric, Seattle, Wash.; Stusser Electric, Seattle and Yakima, Wash.; Columbia Electric Mfg., and Inland Electric, Spokane, Wash.; Home Electric, Tacoma, Wash. (See ad p. 10)

**BERTRAM CO.**, The Harvey P., 2225 Bogen, Cincinnati, Ohio—Roy Huemoeller, 250 Westridge Dr., Santa Clara, Calif.; Dave Masters, 3535 E. Dayton, Fresno, Calif.; North-Munsen, 535 S. 2nd West St., Salt Lake City; Sanford Mechanical Equip. Co., 5658 College Ave., Oakland, Calif.

**BETHLEHEM STEEL CO.**, Pacific Coast Div., 100 California St., San Francisco, Calif.—Sales Offices San Francisco, Los Angeles, Seattle, Portland, Spokane, Phoenix, and Salt Lake City.

**BETHEA CO. INC.**, P. O. Box 1407, Birmingham, Ala.—Maydwell & Hartzell, Inc., in following cities: 870 Tennessee St., San Francisco 7; 427 W. 5th St., Los Angeles; 324 S. 2nd Ave., Phoenix; 2318 N.W. Vaughn St., Portland 10, and 306 Dexter Ave., Seattle 9.

**BIDDLE CO., JAMES G.**, 1316 Arch St., Philadelphia, Pa.—Branch Office: Los Angeles, Calif.; Adolph F. Zell, 12092 Foster Rd., Los Alamitos, Calif.; Instrument Laboratory, Inc., 934 Elliott Ave. West, Seattle; Nourse Equipment Co., 2300 4th St., Berkeley; Western Electro-Mechanical Co., 300 Broadway, Oakland; J. E. Redmond Supply, 625 W. Madison, Phoenix.

**BIGGS CO. INC., CARL H.**, 1547 14th St., Santa Monica, Calif.

**BIDDLE TRADE PUBLISHING CO., 2720 Beverly Blvd., Los Angeles 57 Calif.—Sales Representatives: S. V. Weimer, 604 California Theatre Bldg., San Diego 1; Wm. A. Cyr, Room 605, 68 Post St., San Francisco 4; A. T. Hutchinson, 1245 Bigelow Ave., N., Seattle 9, Wash. (See ad, p. 11)**

**BIN-DICATOR CO.**, 13946 Kercheval Ave., Detroit 15, Mich. — George L. Edmondson, 1455 Custer Ave., San Francisco 24; C. H. Spencer Co., 210 W. 33rd So., Salt Lake City 10.

**BINGHAMTON FLEXIBLE SHAFT DIV., SWARTZ & WHITE MFG. CO.**, 486 Chenango, Binghamton, New York—A. J. Glesener Co., 975 Bryant St., San Francisco; Hickinbotham Bros. Ltd., 536 S. Aurora St., Stockton, Calif.; Pacific Hdwe. & Steel Co., Inc., 1344 The Alameda, San Jose, Calif.

**BISHOP MANUFACTURING CORP.**, 10 Canfield Road, Cedar Grove, N. J.—Jack Pruzan Co., 109 Jackson St., Seattle; J. C. O'Donnell Co., 6216 Meadview Dr., Littleton, Colo.; Industrial Eng. & Equipment Corp., 2975 Wilshire Blvd., Los Angeles 13; Wrathall & Krusi, 1044 Monadnock Bldg., San Francisco 5.

**BLACK & DECKER MFG. CO.**, Towson 4, Md.—Branch Offices: 1010 Bannock St., Denver 4; 2432 So. Broadway, Los Angeles 7; 4343 Third St., San Francisco 24; 434 8th Ave., N., Seattle; 1640 N. W. Johnson St., Portland 9; 900 S. Main St., Salt Lake City; N. 2706 Hemlock St., Spokane 12, and 1506 Grand Ave., Phoenix.

**BLACK LIGHT CORP. OF AMERICA**, 5114 Walnut Grove Ave., San Gabriel, Calif.

**BLACK & WEBSTER, INC.**, 445 Watertown St., Newton, Mass—Hundley Co., 3282 Fletcher Dr. Los Angeles; Harry M. Smith & Assoc., 1341 Old County Rd., Belmont, Calif.; R. E. Duboc Associates, 2353 South Broadway, Denver; Joseph F. Taraba Co., 1824 S. E. 50th Ave., Portland.

**BLACKBURN CORP., JASPER, 1525 Woodson Road, St. Louis 6, Mo.—Donald E. Ingalls, 1485 Bayshore Blvd., San Francisco 24; Robert M. Schow, 1709 W. 8th St., Los Angeles 17; William A. Horning, 902 Friedel Ave., Vancouver, Wash.; W. C. Osborn, P. O. Box 6506, Phoenix; Sales Engineers, 211 Wazee Market, Denver 4 and 49 N. 2nd West, Salt Lake City; Utilities Supply, 419 South 7th St., Phoenix. (See ad, p. 11)**

**BLACKHAWK INDUSTRIES**, 250 S. Main, Dubuque, Iowa—Pacific Electric Sales Co., 140 S. E. 28th Ave., Portland 15, Ore.; G. J. Pomeroy, 1004 E. 14th St., Los Angeles 13; W. B. Imholt Co., 275 Brannan St., San Francisco.

**BLACKHAWK MFG. CO.**, 5325 W. Rogers St., Milwaukee, Wis. — Art Comerford, West Coast District Mgr., 34 Van Tassel Lane, Orinda, California (S. F. area); Frank English, 3060 Alejano Dr., Concord, Calif.; Robert C. Heston, 3023 67th Ave., S. E, Mercer Island, Wash.; Bernie Robertson, 831 E. Bennett Ave., Glendora, Calif.

**BLAKEMAN BROS. ELECTRICAL MFG. CO., 5859 Compton Ave., Los Angeles 1, Calif.—Pacific Electric Sales Co., 140 S. E. 28th Ave., Portland 15; Fred M. Nicholas Co., 714 Harrison St., San Francisco 7.**

**BLAW KNOX CO.**, P. O. Box 1198, Pittsburgh 30, Pa.—Brodhead Steel Products Co. 143 S. Linden Ave., South San Francisco; W. G. Ballantyne Co., 103 S. W. Front Ave., Portland; Wm. Z. Harrison Co., 436 Atlas Bldg., Salt Lake City; S. F. Patterson Co., 1717 West Austin St., Seattle; Bogart Company, 6010 S. Normandie Ave., Los Angeles; J. M. Moore, 2 Santa Fe Dr., Denver; Bannock Steel Co., P. O. Box 669, Pocatello, Ida.

**BLUE M ELECTRIC CO.**, 138th and Chatham St., Blue Island, Ill. — Pacific Combustion Eng. Co., 4832 Huntington Dr., Los Angeles; Harshaw Scientific, 3237 S. Garfield Ave., Los Angeles; Erb & Gray, 854 S. Figueroa St., Los Angeles 17; Neil Winikoff, 7554 44th N.E., Seattle 15; Nurnberg Scientific Co., 2127 4th St., Berkeley, Calif.

**BODENIECK TOOL CO.**, Route 48 North Taylorville, Ill.—H. M. Denny, 111 W. Harrison, Seattle; John H. Ormond, 600 16th St., Oakland; Potter-Bowman Co., 213 North First Ave., Phoenix; R & M Sales, 2214 S. Clayton, Denver; Best Linemen's Supply Co., 541 First Ave. So., Seattle.

**BODINE ELECTRIC CO.**, 2500 W. Bradley Place, Chicago 18, Ill. — C. E. Mello, 406 S. Main, Los Angeles 13; J. F. Cady Co., 1485 Bayshore, San Francisco.

**BOGUE ELECTRIC MFG. CO.**, 52 Iowa Ave., Paterson 3, N. J.—Branch Office: 13415 Ventura Blvd., Sherman Oaks, Calif.; N. R. Schultz, 4227 Airport Way, Seattle.

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**Robert M. Schow**, 1709 W. 8th Street, Los Angeles 17, Calif.

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**James D. Stephens**, Box FG-123, 49 N. 2nd, West, Salt Lake City, Utah

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**S. V. Weimer**, 604 California Theatre Bldg., San Diego 1, California
**A. T. Hutchinson**, 1245 Bigelow Ave., North, Seattle 9, Washington

# Simplex PRODUCTS GUIDE

SIMPLEX WIRE & CABLE CO., CAMBRIDGE 39, MASSACHUSETTS, U.S.A.

**Simplex ANHYDREX Insulated Cables** for Power transmission and Communication (like the Simplex TIREX Portable Cords and Cables shown in adjacent column), though manufactured as stock products, are custom designed to suit all service requirements. A large technical and engineering staff at Simplex' main plant is equipped to give you the benefits of their long experience in electrical cable planning.

**ANHYDROPRENE** — Simplex ANHYDROPRENE Cables are designed for economical installation in ducts, conduits, racks, trays and raceways. Stock sizes AWG 14 to 1000 MCM are recommended for 90 C service in WET or DRY locations. The words "Simplex ANHYDROPRENE" are either printed or molded plainly on the jackets of all ANHYDROPRENE cables. This marking signifies the traditionally high quality of a Simplex product.

CATALOGUE #1028

**ANHYDREX-NEOPRENE** — Simplex ANHYDREX-NEOPRENE Cables have the added mechanical protection of a heavy wall of neoprene jacketing. These cables are manufactured for use in aerial installations and for direct burial service. Stock sizes AWG 14 to 1000 MCM are recommended for 90 C service in WET or DRY locations.

CATALOGUE #1028

**ANHYDREX-PLASTEX** — Simplex ANHYDREX-PLASTEX (ANHYDREX-insulated, PLASTEX-jacketed) Cables are scientifically designed for compatibility between insulation and jacket, and for perfectly balanced performance in ducts, conduits, aerial and direct burial installations. ANHYDREX-PLASTEX Cables are recommended for service in a number of environments but especially where oils and chemicals are a problem.

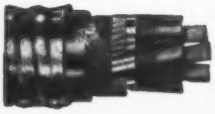
CATALOGUE #1028

**ANHYDREX Insulated Control Cables** — Simplex ANHYDREX Control, Signal and Communication Cables have an additional thickness of appropriately coded neoprene over each individual conductor, plus heavy-duty neoprene jackets. ANHYDREX insulation provides excellent signal reproduction and is exceptionally stable, even when operating with high ambient temperatures.

CATALOGUE #1028

**ANHYDREX XX** — Simplex ANHYDREX XX is a butyl-based insulation of the highest possible quality. Because of its exceptional resistance to heat and ozone, it has general applications in circuits operating up to 35,000 volts, with permissible conductor temperatures of 90 C. to 5KV, and 85 C to 17KV — in wet or dry locations.

CATALOGUE #1023



**CONDEX** — Simplex CONDEX Cables are protected against mechanical damage by interlocked metallic armor. The armor is manufactured of galvanized steel, plain or baked enameled (colored) aluminum, bronze or other metals, and can be applied over any cable core within a very wide diameter range. CONDEX Cables may be further protected by a thermoplastic covering over or under the metallic armor.

CATALOGUE #1024

**TIREX SO and SJO Cords** — TIREX SO and SJO Cords are constructed to meet the most rigid specifications. All of their special features are carefully selected and processed to give maximum qualifications for portable service. They will twist without kinking, and bend without breaking. TIREX stranding affords maximum flexibility without sacrificing strength.

Conductor temperature rating 75c

CATALOGUE #992

**TIREX Low Voltage Portable Cables** — TIREX Low Voltage Cables are individually designed for specific applications. They are practically indestructible when used to do the work for which they are intended.

Conductor temperature rating 75c

CATALOGUES #992 & #1011

**TIREX High Voltage Portable Cables** — TIREX High Voltage Portable Cables have unequaled strength and versatility. Designed primarily to transmit energy to mobile electrical equipment, they are also used as temporary power lines during alterations or emergency repairs.

Conductor temperature rating 75c

CATALOGUE #1012

**TIREX Mine Locomotive Cables** — TIREX Mine Locomotive Cables — both single and two-conductor concentric — are approved by the Bureau of Mines and have the raised marking "P-101 BM" on their heavy-duty neoprene jackets. All TIREX Cables are cured and conditioned for service in lead

Conductor temperature rating 75c

CATALOGUE #1011

**TIREX Mining Machine and Shuttle Car Cables** — TIREX Mining Machine and Shuttle Car Cables are designed for stability under today's rigorous mining conditions. The insulated conductors are "ribbed" or gear-shaped. This feature causes them to interlock with the heavy duty neoprene jacket and prevents them from slipping. Both Type W and Type G have "P-101 BM" molded onto the jacket.

Conductor temperature rating 75c

CATALOGUE #1011

**TIREX Dredge and Shovel Cables** — TIREX Dredge and Shovel Cables are masterpieces of engineering achievement. Every consideration has been given to safety and durability. Simplex special cured-in-lead neoprene armor effectively resists all the elements normally encountered in this type of work.

Conductor temperature rating 75c

CATALOGUE #1012

**TIREX Welding Cables** —TIREX Welding Cables are scientifically stranded for maximum flexibility without wrist drag. Cured-in-lead neoprene jackets provide utmost safety for both operator and bystanders.

Conductor temperature rating 75c

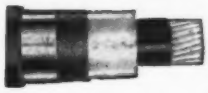
CATALOGUE #1011

# AND CATALOG REFERENCE

Please address requests to the Simplex home office in Cambridge or to your nearest Simplex district office.

**Simplex Paper Insulated Cables** — Simplex Paper Insulated Cables are individually designed for specific jobs. They are available as either single or multiple conductor cables. The stranding may be round, segmental, sector or compact. Lead sheaths, reinforced neoprene jackets, or combinations of these are available for protection against moisture.

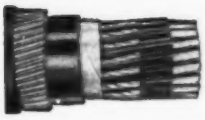
**Simplex Polyethylene Insulated Cables** — The versatility of Simplex Polyethylene has increased tremendously during the last ten years. Research has adapted it, not only to control and communication circuits, but also for power applications up to 35,000 volts. Our experience in this specialized field is unmatched by any other cable manufacturer.



**Simplex SIMCONEX Insulation** — SIMCONEX (Simplex silicone) Insulated Cables are specially designed for service where unusual extremes in operating temperatures prevail. SIMCONEX may be specified on all types of power, control, and communication cables. It is practically immune to ozone and corona and, with its temperature rating of up to 200 C for certain applications, it has the greatest resistance to heat of any known thermosetting insulation.

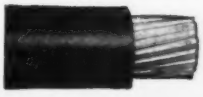
**CATALOGUE #1032**

**Diesel Locomotive Cables** — Diesel Locomotive Cables are specially insulated and jacketed for 90 C service in the following applications: generator leads, motor leads, power jumpers, control jumpers, lighting systems, headlight wire, controller wiring, and cab signal wire. Highly flexible stranding promotes easy installation.



**Antimicrophonic Cables** — Simplex Antimicrophonic Cables are adaptable wherever extremely fine measurements are to be made. They will not produce spurious voltages when compressed, deformed or subjected to violent shock. Can be manufactured with a varying number of conductors and conductor sizes.

**Bore Hole and Shaft Cables** — Bore Hole and Shaft Cables are generally insulated with Simplex ANHYDREX moisture-resistant insulation. Mechanical protection is provided by galvanized or stainless steel, copper, copperweld or other appropriate round wire armor. PLASTEX jackets may be specified over or under the wire armor.



**PLASTEX Apparatus Wire** — Simplex PLASTEX Apparatus Wire — for machine tool, switchboard wiring and other similar applications. Simplex PLASTEX is available to meet a wide range of operating temperatures.

**C-L-X Sheaths** — Simplex C-L-X is a continuously corrugated, pliable, lightweight, exterior metallic cable sheath which is impervious to gases, chemicals, and water. Its unique construction makes it adaptable to nearly all environments or services and gives it a combination of properties unmatched by any cable system now manufactured. C-L-X is appropriately called "the metallic duct with built-in cable."

**CATALOGUE #1031**

**ANHYDREX Submarine Cables** — Simplex ANHYDREX Submarine Cables for power, control and communication circuits are designed from experience dating back to 1920. (The moisture resistance of ANHYDREX made possible the first nonleaded submarine cables.) High tensile strength armor wires of steel or other appropriate metals provide the best possible mechanical protection.

**Self-Supporting Aerial Cables** — Simplex Self-Supporting Aerial Cables for power, control and communication circuits practically eliminate the necessity of tree trimming. They are completely assembled at the factory and ready for installation. Because of this, they are extremely easy to handle and cut installation cost to a fraction of what it would normally be.

**CATALOGUE #1006**

**Lead Covered Cables** — When a customer's specifications demand a lead sheath, Simplex has full facilities for its manufacture. A number of high-grade lead alloys are available including tellurium, copper bearing and arsenical. Recent studies enable Simplex engineers to recommend the most appropriate lead sheath alloy for your particular application.

**Railroad Signal and Communication Cables** — Railroad Signal and Communication Cables may be insulated with either ANHYDREX or Polyethylene, with mechanical protection, according to individual needs. Bronze tapes are usually provided in direct burial constructions.

**Cathodic Protection Cables** — Cathodic Protection Cables are used to equalize voltage potential between metallic structures and the earth. Simplex ANHYDREX or Polyethylene insulations may be specified with complete confidence.

**CATALOGUE #1033**

**Simplex Varnished Cambric Cables** — Simplex Varnished Cambric Cables are particularly suited for station or power house wiring, or for any service where the operating temperature is high. Between each layer of varnished cambric is a plastic filler compound which is nonhardening, and nonmigrating. It allows the tapes to slip one upon the other without danger of wrinkling.

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**BRADEN WINCH CO.,** Broken Arrow, Okla.—Brown's Truck Wrecking, 917 McGarry St., Los Angeles 21, Calif.; Forsburg & McLaughlin, Inc., Second and Addison Sts., Berkeley 10, Calif.; Schenky Equipment Corporation, 1810 S. E. 10th Ave., Portland 14, Ore., and 3407 Airport Way, Seattle; American Machine Co., West 1026 Broadway Ave., Spokane 11, Wash.; Ben's Truck Parts, 2622 S. Tacoma Way, Tacoma 3, Wash.; A. D. Blackler Company, 909 Westlake North, Seattle, Wash.; Paul K. Haggard Co., 4431 N. 7th St., Tacoma, Wash.

**BRADLEY LABORATORIES, INC.** 275 Welton St., New Haven, Conn.—Stevens & Capell Co., 2639 S. La Cienega Blvd., Los Angeles; Long and Associates, 1210 Canterbury Dr., Burlingame, Calif.

**BRADY CO., W. H.,** 708 W. Glendale Ave., Milwaukee, Wis.—Branch Office: 923 E. Third St., Los Angeles 13, and 1246 Folsom St., San Francisco; Electrical Specialties Co. in following cities: 158 11th St., San Francisco 3; 2820 E. 12th St., Los Angeles; 2442 First Ave., So., Seattle; 2026 Arapahoe St., Denver; 210 W. Adams St., Phoenix; 2588 Simpson Ave., Salt Lake City; 212 N.W. 14th St., Portland; Buel-Town Co., 275 5th Ave., San Diego, Calif.; Yates Products Co., 705 W. Ivy St., Glendale 4, Calif.; Graybar Electric Company in all principal cities.

**BRAND & CO., INC., WILLIAM,** North and Valley Sts., Willimantic, Conn.—Wm. J. Purdy Co., 312 Seventh St., San Francisco 3; Associated Industreis 1752 Rainier Ave., Seattle 44; Denver Engineering Sales Co., 2720 E. 3rd Ave., Denver 6, and Suite 212, Beason Bldg., Salt Lake City 11; W. D. Collins Jr., 535 Middlefield Rd., Palo Alto, Calif.; Cochrane-Barron Co., 544 S. Mariposa Ave., Los Angeles 5.

**BRAND WIRE & CABLE CORP., Wm.,** 3030 Nebraska St., Santa Monica, Calif.—Cochrane-Barron Co., 544 S. Mariposa Ave., Los Angeles 5; W. D. Collins, Jr., 535 Middlefield Rd., Palo Alto, Calif.; Wm. J. Purdy Co., 312 7th St., San Francisco 3; Denver Engineering Sales Co., 2720 E. 3rd St., Denver 6, and Suite 212, Beason Bldg., Salt Lake City; Associated Industries, 1752 Rainier Ave., Seattle 44.

**BRANDYWINE FIBRE PRODUCTS CO.,** 15th and Poplar, Wilmington, Del.—Electrical Specialty Co., 158 11th St., San Francisco, and 2820 E. 12th St., Los Angeles.

**BRANSON INSTRUMENTS, INC., and BRANSON ULTRASONIC CORP.,** 37 Brown House Road, Stamford, Conn.—McCormick's Chemical & Inspection Co., 210 San Leandro Blvd., San Leandro, Calif.; Technical Equip. Corp., 917 Acoma St., Denver; Branson Instruments, Inc., 12438 Ventura Blvd., Studio City, Calif.; Rowley-Bouvette, Inc., 955 Folsom Ave., Salt Lake City.

**BREIDERT CO., THE G. C.,** 13690 Vaughn St., Pacoima, Calif.—Boyd Engineering Co., 112 Granite Ave., N. E., Albuquerque; Pearsall Co., 120 W. 5th Ave., Denver; Harry F. Haldeman, Inc., 2401 S. Hill, Los Angeles 7; Neil H. Peterson Co., 1485 Bayshore Blvd., San Francisco; W. M. Walterskirchen, 107 E. Main St., Missoula, Mont.; Carns Hoaglund Co., 420 N. 15th Ave., Phoenix; Mead & Associates, 317 S. W. Alder, Portland 4; Frontier Engineering Co., 81 E. 7th South, Salt Lake City; George E. Mead Co., 501 Arctic Bldg., Seattle; Francis J. Fallquist, S. 180 Washington St., Spokane, Wash.

**BRENTON EQUIPMENT CO.,** 374 Brannon St., San Francisco—A. F. Johnson Co., 10430 Burbank Blvd., North Hollywood, Calif.

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**BROAN MANUFACTURING CO., INC.,** 926 W. State St., Hartford, Wisconsin—Baxter Co., 101 Kansas St., San Francisco; Keeler, White, Portland, 322 N.W. 4th Ave., Portland; Keeler, White, Inc., 1041 6th Ave. So., Seattle.

**BROOK MOTOR CORP.,** 3553 West Peterson Ave., Chicago 45, Ill. — W. G. Ballantyne & Co., 103 S. W. Front St., Portland; R. E. Kunz, 1016 First Ave., South, Seattle; John E. Elggren, 212 West 4th South, Salt Lake City; H. J. Fender, 1620 E. Earll Dr., Phoenix; Charles E. Harrison, 1345 Daveric Dr., Pasadena, Calif.; Carl Lowe, 1615 Broadway, Oakland.

**BROOKSIDE MFG. CO., INC.,** Jamaica Plains 30, Mass.—L. A. Nott, 1061 Howard St., San Francisco; Pacific Electric Sales, 140 S. E. 28th Ave., Portland.

**BROWN-BOVERI CORP., 19 Rector St., New York City 6—Belilove Co., 420 Market St., San Francisco 11; A. B. Smedley, P. O. Box 67-C, Pasadena; Slaybough-Thompson Co., 100 West 13th St., Denver 4; Central Station Equipment Co., 2323 Aviation Highway, Tucson, Ariz. Branch Office: A. C. Conger, Executive Bldg., Portland, Ore.**

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**BRYANT ELECTRIC CO., THE,** 1421 State St., Bridgeport, Conn.—Branch Office: 3310 Leonis Blvd., Los Angeles 58, Calif.; Stubbs Elec. Co., 33 N. W. Park Ave., Portland.

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| **ELECTRICAL ENGINEERS EQUIPMENT CO.** | Indoor Bus Supports, Interrupter Switches, Isolators, Power Switching Equipment, Metalclad Switchgear. |
| **KELLEMS CO.** | Cable Grips for Pulling & Support |
| **LAND-AIR, INC.** | Dry Type Transformers. |
| **PENNSYLVANIA TRANSFORMER DIV. McGRAW-EDISON CO.** | Power & Distribution Transformers, Unit Substations, Voltage Regulators, Switchgear. |
| **THE STATES CO.** | Test Blocks, Phantom Loads, Meter Testing Equipment |
| **THOMAS WORKS, DELTA STAR DIV. H. K. PORTER CO. Inc.** | Porcelain Insulators & Hardware. |
| **WHITSO, INC.** | Standoff Terminals, Jacks, Knobs. Custom Molded Products |


**BUCHANAN ELECTRICAL PRODUCTS CORP.**, 445 U. S. 22, Hillside, N. J.—Frank Rozema, 412 Seaton St., Los Angeles; Fred A. Pease, 4921 East 38th St., Denver 7; Keeler, White Co., 1041 Sixth Ave., So., Seattle 4; Keeler White-Portland, 322 N. W. 4th Ave., Portland 9; Walter McHugh Industries, Ltd., 1817 West 4th Ave., Vancouver 9, B. C. (See ad, p. 14)

**BUCKINGHAM MANUFACTURING CO.**, 7-9 Travis Ave., Binghampton, N. Y.—Linemen's Supply Co., 2704 S. Hill St., Los Angeles 24; Western Hardware & Tool, 122 10th St., San Francisco; Best Linemen's Supply Corp., 541 First Ave. South, Seattle; Safety Equipment Co., 1631 17th St., Denver; Utilities Supply, 419 South 7th, Phoenix. (See ad p. 80)

**BUCKLES CO., CHRIS**, 2300 S. Springfield, Chicago, Ill.—C. B. Gratiot Co., 1282 Folsom St., San Francisco; O. W. Coombs Sales, 1026 S. Olive St., Los Angeles.

**BUFFALO FORGE CO.**, 490 Broadway, Buffalo, N. Y. —Richard D. Stites, 405 Grand Ave., South San Francisco; A. T. Forsyth Co., 2800 15th Ave., West, Seattle; Halladay & Knauff, 1127 Wilshire Blvd., Los Angeles; Pace-Turpin & Co., 726 So. 3rd West St., Salt Lake City; Hugh Munn, 700 Haines Ave., N. W., Albuquerque, N. M.; W. C. Griggs, 655 Broadway Bldg., Denver; J. E. Redmond Supply Co., 625 West Madison St., Phoenix.

**BUFFALO METER CO.**, 2917 Main St., Buffalo 14, N. Y. — T. R. Routh Co., 1209 Capuchino Ave., Burlingame, Calif.; W. R. Ladewig Co., 5608 E. Washington Blvd., Los Angeles 22; Burhans Sharpe Co., 1731 First Ave., South, Seattle 4, and Weatherly Bldg., Portland 14; Joy & Cox, Inc., 2124 Denver 5.

**BUHRKE CO., R. H.**, 1403 W. Congress St., Chicago, Ill.—Best Linemen's Supply Corp., 541 First Ave So., Seattle; Charles E. Morton Co., 447 W. Garvey Ave., Monterey Park, Calif.; Brenton Equip. Co., 374 Brannan St., San Francisco 7; R & M Sales, 2214 S. Clayton, Denver.

**BULLARD CO., E. D.**, 2680 Bridgeway, Sausalito, Calif.—Branch Office: 6719 S. Figueroa St., Los Angeles. Spokane Safety Appliance, N. 219 Division, Spokane; Safety & Supply Co., 115 Blanchard St., Seattle; Sanderson Safety Supply Co., 816 S. E. Hawthorne Blvd., Portland; Intermountain Equipment Co., P. O. Box 1129, Boise; Goodall Rubber Co., 1033 Santa Fe Dr., Denver, and 631 South 2nd West, Salt Lake City; Garrett Supply Co., 2950 W. Thomas Rd., Phoenix; Central New Mexico Equip. Co., 3712 Edith Blvd., N.E., Albuquerque, N. M.; Bashaw Equipment Co., 5th Ave. At Merrill Field, Anchorage, Alaska; Gaspro, Ltd., P. O. Box 2454, Honolulu 4, Hawaii.

**BULLDOG ELECTRIC PRODUCTS CO.**, 7610 Jos. Campau Ave., Detroit, Mich.—Safety Switchboard & Mfg. Co., 910 89th Ave., Oakland 21; Coast Electric & Mfg. Co., 1733 N. E. 7th Ave., Portland, and 131 W. 76th St., Seattle 7; Young Elec. & Mfg. Co., 2134 Curtis St., Denver 2; Bull-Dog Elec. Prod. of Los Angeles, 2885 E. Washington Blvd., Los Angeles.

**BUNKER HILL COMPANY**, 660 Market St., San Francisco, Calif.—Branch Offices: 2700 16th Ave. S. W., Seattle 4; 1233 N. W. Kearney St., Portland 9; 1336 16th St., Oakland 7; 2151 Yates Ave., Los Angeles 22; P. O. Box 2903, Honolulu, T. H.

**BUNTING BRASS & BRONZE CO., THE**, 715 Spencer St., Toledo, Ohio—Branch Offices: 277 7th St., San Francisco, and 240 W. 18th St., Los Angeles. Distributors: Tri-State Supply in following cities: 544 S. San Pedro, Los Angeles, 554 Bryant St., San Francisco, and 318 Occidental, Seattle; L. L. Burror & Co., 1126 8th Ave., Oakland, and Seattle; C. E. Riggs, 317 N. W. Broadway, Portland, and Seattle; J. R. Christensen Agency, 247 E. 5th So., Salt Lake City; Arrowhead Elec. Corp., 5979 So. Figeuroa, Los Angeles; Bay City Bearing Co., 2138 American Ave., Long Beach, Calif.; Montezuma Bearing Co., Albuquerque; Bushing Service, Phoenix; Tucson Bearing Co., Tucson; Hendrie & Bolthoff, Denver; Consolidated Parts, Denver; Western Bearing Inc., Boise; Bitco, Inc., Spokane; Yakima Bearing Co., Yakima; Bearing Supply Co., Stockton, Calif.; Bay City Bearing, Maywood; Advance Carbon Elec. Mfg., San Francisco; McGuire Bearing Co., Portland; Pacific Northwest Industries, Seattle; Eureka Bearing & Supply, Anaheim, Calif.; Aircraft & Ind. Bearings, Culver City, Calif.; Bay City Bearing Co., Long Beach, Calif.

**BURBANK ELECTRICAL PRODUCTS**, 215 W. Palm Ave., Burbank, Calif.—Ernst F. Hauch, 1282 Folsom St., San Francisco 3; McLoughlin Co., 811 E. 14th Place, Los Angeles 54.

**BURGESS BATTERY COMPANY**, Div. of Servel, Inc., Freeport, Ill.—Dave M. Lee Co., 2517 Second Ave., Seattle; John Allen Ware & Associates, 301 West "G" St., San Diego, Calif.; John Geiger, 262 El Nido Ave., Monrovia, Calif.; Philip R. Crocker, 2171 Hillview Dr., Walnut Creek, Calif.; Hyde Electronics Co., 888 S. Lipan St., Denver.

**BURGESS-MANNING CO.**, Architectural Prod. Div., 5970 Northwest Highway, Chicago 31, Ill.—Branch Office: Oakland, Calif. Bogart-Bullock Corp., 6010 S. Normandie Ave., Los Angeles.


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**BURLING INSTRUMENT CO.**, 16 River Road, Chatham, N. J.—Ralph B. Lundy, 1063 Howard, San Francisco; Charles Meriam Co., 5017 Telegraph Road, Los Angeles.

**BURNDY CORP., INC.**, Norwalk, Conn.—George E. Honn Co., 420 Market St., San Francisco 11; Earl S. Condon Co., 3450 Wilshire Blvd., Los Angeles 5; Shaffer & Nelson, 139 S.E. Taylor St., Portland; 312 Occidental Ave., Seattle 4; W. 1835 Broadway, Spokane 10; 212 Beason Bldg., Salt Lake City 11, and 3101 N. 36th St., Boise; Petersen Co., 4949 Colorado Blvd., Denver.

**BURNELL & CO.**, 45 Warburton Ave., Yonkers, N. Y. —Gordon S. Marshall, 40 S. Las Robles, Pasadena, Calif.; C. R. Dalton Associates, 1037 Laurel St., San Carlos, Calif.

**BURNLEY BATTERY & MFG. CO.**, 103 Clay St., North East, Pa.—Joslyn Pacific Co., Div. of Joslyn Mfg. & Supply Co., in the following cities: 5100 District Blvd., Los Angeles; 180 Potrero St., San Francisco; 1523 N. W. Kearney St., Portland, and 2424 1st Ave., Seattle.

**BURNTEX CORP.**, Houston, Texas—W. A. McGuire, 164 S. Central Ave., Los Angeles 12.

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**FUSETRON Dual-Element Fuses.** Eliminate needless blowing of circuit fuses. Protect motors against burnout from overloads or single phasing. Reduce heating in panels and switches. Give thermal protection to panels and switches. Save on service and maintenance costs. In all sizes 1/10 amp. up —in 125, 250 and 600 volt types. Fit regular fuse holders.

**BUSS Fustats.** (Type "S" fuses) Operate like Fusetron fuses. Make SAFE protection REMAIN SAFE. 3/10 to 30 amp. sizes. Fit plug fuse holders thru use of inexpensive adapter.

**BUSS Super-Lag Fuses.** Give a freedom from needless blows not possible with any other renewable fuse. Greatly reduce out-of-service losses and fuse bills.

**BUSS One-Time Fuses.** Receive same engineering care in manufacture as all products bearing BUSS trade mark. Safe and dependable under all conditions.

**BUSS Hi-Cap Fuses.** On loads above 600 and up to 6000 amperes give high speed operation on heavy short-circuits and limit current to safe values. This minimizes damage to equipment and cuts down dangerous stresses on transformers.

**BUSS Limitron Fuses.** For short-circuit protection on loads of 600 amperes or less. Extremely fast opening of these fuses prevent heavy short-circuit currents from building up under fault conditions. Can be coordinated to limit outage to circuit of origin.

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**L. E. Waggoner, 1004 East 4th St., Los Angeles 13, Calif.**
**R. H. Shipek, 513 East 125th St., Seattle 55, Wash.**
**H. L. Davin, 2919 Forest St., Denver 7, Colorado**
**Gordon Dougherty, P. O. Box 188, Kailua, Hawaii**



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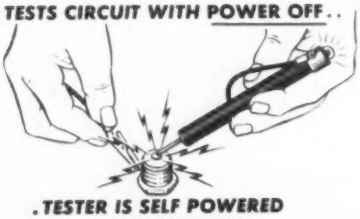

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**Switches of all types checked quickly**

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**BURNWORTH TESTER, 815 Pomona Ave., El Cerrito 8, Calif.—J. B. Calder & Co., 1017 Howard St., San Francisco; Baker & Hamilton, 700 7th St., San Francisco; State Electric Supply, 240 10th St., Oakland; San Joaquin Wholesale, 1130 6th, Modesto; R & H Wholesale, 156 8th St., San Francisco; Electrical Suppliers Inc., 220 M St., Fresno, Calif.; Valley Electric, 630 N. Grant St., Stockton, Calif (See ad, p. 16)**

**BURT MFG. CO.,** 44 E. South St., Akron, 11, Ohio—Samson Sales Co., 420 Market St., San Francisco; Engineers Metals of So. Calif., 437 Fernando Court, Glendale, Calif.; Pace-Turpin & Co., 726 S. 3rd West, Salt Lake City; C. A. Crosta, Inc., Denver; Marion Butler, 5435 N. Lagoon Ave., Portland, Ore.; Steel & Engrg. Prod., El Paso, Texas, and Albuquerque, N. M.; Hal Fogman & Associates, Inc., P. O. Box 1344, Seattle.

**BURTON EQUIPMENT CO., INC.,** 4810 Firestone Blvd., South Gate, Calif.—Barney Hartley, Box 4381, Phoenix.

**BURTON-ROGERS CO.,** Sales Div., Hoyt Elec'l Instr. Works, 42 Carlton St., Cambridge, Mass.—Harvey Shoemaker, 1127 Wilshire Blvd., Los Angeles 17; Jim Dolliver, 1750 Oneida, Denver 7; Roy E. Ryberg, 2522 35th Ave., W., Seattle 99.

**BUSSMANN MFG. DIV., McGraw-Edison Co., University at Jefferson, St. Louis 7, Mo.—L. E. Waggoner and R. L. Kerr, 1004 East 4th St., Los Angeles 13, Calif.; N. S. Beyer, 2166 Market St., San Francisco 14, Calif.; R. H. Shipek, 513 East 125th St., Seattle 55, Wash.; H. L. Davin, 2919 Forest St., Denver 7, Colo.; Gordon Dougherty, P. O. Box 188, Kailua, Hawaii. (See ad, page 16.)**

**BYRON JACKSON PUMPS, INC.,** P. O. Box 2017, Terminal Annex, Los Angeles 54. Branch offices: ARIZONA: Casa Grande and Phoenix; CALIFORNIA: Chico, Huntington Park, Malaga, Sacramento, Santa Clara, San Francisco, Vernon; WASHINGTON: Seattle.

**C & D BATTERIES, INC.,** Conshohocken, Pa.—Howard Toncray, 1732 Blake St., Denver; Fred Pelletier, 1014 Venice Blvd., Los Angeles; McCormick Morgan Co., 324 Fifth St., San Francisco; Potter-Bowman Co., 213 N. 1st Ave., Phoenix; Vincent J. Arnold, 208 S. W. Sterk St., Portland; Frank T. Butler, 722 Fern Glen, La Jolla, Calif.; V. T. Allison, E. 125 Mission St., Spokane.

**CABLE ELECTRIC PRODUCTS, INC.,** 234 Daboll St., Providence, R. I.—The Frank H. Bran Company, 607 E. 6th St., Los Angeles; Vic Paul Co., 510 N. W. Hoyt St., Portland 9; Allen B. Carpenter Co., 1314 Wazee St., Denver 4; J. E. Collins Co., 1485 Bayshore Blvd., San Francisco 24; Makinney (Hawaii), 810 South St., Honolulu, Hawaii.

**CADWELD PROCESS** (See Erico Products.)

**CALIFORNIA CONDUIT & CABLE CO.,** 2204 Orange St., Alhambra, Calif.—Hodges & Glomb, 921 Bryant St., San Francisco; Keeler White Co., 322 N. W. Fourth Ave., Portland 9; Payne & Sloan, Inc., 1101 E. 5th St., Los Angeles.

**CALINOY DIVISION of Illinois Tool Works,** 3155 W. El Segundo Blvd., Hawthorne, Calif.—James Findlay Co., P. O. Box 717, Bellevue, Wash., Miner and Assoc., Inc., 115 Main St., El Segundo, Calif.

**CALLITE TUNGSTEN CORP.,** 481 Washington St., Newark 2, N. J.—Jack Kaufman, 126 25th Ave., San Mateo, Calif.

**CALIFORNIA CROSSARM CO. (See Pacific Crossarm),** Los Angeles 39, Calif.—Matzginer-Johnson Co., 1329 Willow St., Los Angeles 13.

**CALVERT CO.**—Oliver B. Lyman, 55 New Montgomery St.; Randolph Engineering Corp., 12202 East Garvey Ave., El Monte, Calif.

**CALWIRE,** 326 N.W. Third Ave., Visalia, Calif.—Michel Brothers, 1413 E. 20th St., Los Angeles; George A. Gray Co., 2720 17th St., San Francisco 10.

**CAM-LOK DIV., EMPIRE PRODUCTS, INC.,** 9201 Blue Ash Road, Cincinnati 36, Ohio—J. B. Nottingham & Co., 1965 Pacific Ave., Long Beach, Calif.; R. C. Fessler & Co., 1125 Westminster Ave., Alhambra, Calif.

**CAM-STAT INC.,** Div. of the Paul Henry Co., W. Olympic & Burndy Blvd., Los Angeles 64, Calif.—H. D. Campbell Co., 220 9th North, Seattle.

**CAM TOOL CO., INC.,** 1038 Larkin St., San Francisco, Calif.—George Teetzel Co., 1724 S. Flower, Los Angeles; R. K. Flanagan, 1631 16th St., Seattle; H. P. Moran, 3871 Piedmont, Oakland; Achel West, 1123 E. Oregon, Phoenix; E. L. Michael, 2340 S. Milwaukee, Denver.

**CAMBER LIGHTING, INC.,** 37 Montgomery St., Jersey City, N. J.—Jack Finkelstem, 546 W. Encanto Blvd., Phoenix, Ariz.; Al C. Slater & Assoc., 9011 15th Ave. N. E., Seattle; Bill Sylvester, 2144 Welton St., Denver.

**CANNON ELECTRIC CO.,** 3208 Humboldt St., Los Angeles 31, Calif.—Wm. V. Brainard, 535 Middlefield Road, Palo Alto, Calif.; James J. Backer Co., 221 W. Galer St., Seattle 99; Allen I. Williams Co., 2263 S. Albion St., Denver 22; Dougherty Enterprises, 149 Kaimi St., Kailua, Hawaii.

**CAPEWELL MFG. CO.,** 60 Governor St., Hartford 2, Conn.—Rueger Co., 1335 So. Hill, Los Angeles, and 889 Bryant St., San Francisco; 516 Henry Bldg., Portland, and P. O. Box 4033, Magnolia Sta., Seattle.

**CARBON ENGINEERING CORP.,** 400 Railroad, Slinger, Wis.—Representative: James Krotozyner, 544 Market St., San Francisco. Distributors: L. L. Burror Co., 1126 8th Ave., Oakland 6; Arrowhead Electric Corp., 5979 S. Figueroa St., Los Angeles 3; Reliable Electric Co., 802 W. Jefferson St., Phoenix; Tinling & Powell, E. 706 Sprague Ave., Spokane; Electric Motor Co., 707 Commerce St., Tacoma.

**CARBONE CORPORATION,** 400 Myrtle Ave., Boonton, N. J.—E. C. Brehm, 2312 Cerquinez Ave., El Cerrito, Calif.; W. E. Ferris, 422 W. Roses Road, San Gabriel, Calif.; D. E. Johnson, 3139 S. W. Altadena Terrace, Portland; E. A. Wilcox Co., 277 Seventh St., Los Angeles.

**CARBORUNDUM CO. OF REFRACTORIES DIV.,** Hyde Park Blvd., Niagara Falls—The Carborundum Co., 2626 Malt Ave., Los Angeles, and Alviso Road & Evelyn Ave., Mountain View, Calif.; L. E. West, 557 E. Walnut St., Pasadena 1, Calif.; Eichorn & Melchoir, 749 Bryant St., San Francisco 7.

**CARLON PRODUCTS CORP.**—250 E. Manville St., Compton, Calif.—Branch Offices: 1860 S. Acoma, Denver; 1516 Thurman N.W., Portland; 1905 E. Roma, Phoenix; 10 Mississippi, San Francisco.

**CAROL CABLE CO., 190 Middle St., Pawtucket, R. I.—Bruce-Emmett Co., 830 S.E. Alder St., Portland, 1016 First Ave. S., Seattle, and North 5923 Drumheller, Spokane 15; Payne & Sloan, Inc., 1101 East 5th St., Los Angeles 13; F. M. Nicholas Co., 714 Harrison St., San Francisco 7.**

**CARPENTER MFG. CO.,** 165 Bradley, Somerville 45, Mass.—CALIF.: Geo. F. Cake Co., Berkeley; Napa Fire Equip., Napa; L. N. Curtis Sons, Oakland; San Diego Fire Equip., San Diego; R. C. Lawrance, Pomona; Highway Safety Equipment, Los Angeles. OREGON: Nelson Equipment, Portland; Waterworks Supply, Portland; Munnell & Sherrill, Portland; WASH: Yukon Equipment, Seattle; Specialty Sales, Spokane; Northern Com'l Co., Seattle; Andy D. Johnson, Tacoma; B. Givens Co., Bellevue; L. N. Curtis & Son, Seattle; Neep Equip. Co., Portland; Seagrave-Hirsch, Inc., Los Angeles; John F. Wardlaw Fire Equip. Co., Rivera, Los Angeles.

**CARPENTER-PETERSON, INC.,** 18 Hurley, Cambridge, Mass.—Gil Moore & Co., 1001 Tennessee St., San Francisco.

**CARPENTER STEEL CO.,** Alloy Tube Div., Springfield Road Union, N. J.—Branch Office: 2304 Huntington Dr., San Marino, Calif. Distributors: Electric Steel Foundry Co., 2141 N.W. 25th Ave., Portland 10; 2724 1st Ave. So., Seattle 4; 1280 65th St., Emeryville, Calif.; 4600 Pacific Blvd., Los Angeles 11.

**CARRIER CORPORATION,** Carrier Parkway, Syracuse 1, N. Y.—Branch Offices: 900 Tennessee St., San Francisco; 5330 Harbor St., Los Angeles; 660 Bannock St., Denver; 3424 N. Central Ave., Phoenix; S. E. Grand at Morrison Portland 4.

**CASH VALUE MFG. CORP., A. W.,** 666 E. Wabash, Decatur, Ill.—T. F. Watson & Assoc., 2240 Wood St., Oakland 7; James A. Riordan Co., 1400 Santa Fe Ave., Los Angeles; Sales Engineers, Ltd., 7919 Monroe St., Paramount, Calif.; G. Robert Parker Co., 1458 Pennsylvania St., Denver; Chester L. Duke, 3317 N. 31st St., Tacoma 7.

**CATALYTIC COMBUSTION CORP.,** 4725 14th St., Detroit, Mich.—G. L. Majer, 1614 D Hempstead, Anaheim, Calif.; Heat & Controls, Inc., 1615 Cortland Ave., San Francisco 10 and 1224 S.W. Morrison St., Portland; Blair Eng. Co., 4100 Grape St., Denver 16.

**CAVALIER CORP.,** Electric Heater Div., 343 W. 1st St., Chattanooga, Tenn. — Bruce-Emmett Co., 830 S. E. Alder St., Portland, and 1016 First Ave. South, Seattle, 5923 N. Drumheller, Spokane, and 410 Wall St., Salt Lake City; Dan H. Radke Co., 754 Natoma St., San Francisco; Fred A. Pease, 4921 E. 38th Ave., Denver 7.

**CECO STEEL PRODUCTS CORP.,** 5601 W. 26th St., Chicago, Ill.—Branch: 401 Tunnel Ave., San Francisco; 1450 Mirasol, Los Angeles.

**CEILHEAT, INC., 5212 Homberg Drive, Knoxville, Tenn.—G. M. Howard & Assoc., 1301 Sixth St., San Francisco 7; Page E. Golsan, 1421 S. Flower St., Los Angeles 15; Dale Blomquist, 235 E. Third St., Salt Lake City 1; Ben T. Clark, 1421 Court Place, Denver 2; Ralph L. Mooney, 540 E. Rose Lane Terrace, Phoenix; R. W. Rieder, 646 N. Thompson St., Portland 12. (See ad, p. 17)**

**CELINE, INC.,** North Island Ave., Batavia, Ill.—A. B. Smedley, P. O. Box 67-C, Pasadena, Calif.

**CENTRAL AUTOMATIC SPRINKLER CO.,** Fourth and Cannon Ave., Lansdale, Pa. — Approved Auto. Sprinkler Co., 108 So. Park St., San Francisco, and Herman Lawson Co., 465 Tehama St., San Francisco; Rautman Plumbing & Heating Co., 115 Jackson St., Seattle 4; Lent's, Inc., 270 Fourth St., Bremerton, Wash.; M. B. Hinds, 2605 S. W. Third Ave., Portland; Orvin Eng. Co., La Habra, Calif.; Jardine-Wardman Inc., Colorado Springs, Colo.; L. Z. Brown, 288 N. Vermont Ave., Los Angeles; D. A. Wise, 973 W. St. Andrews Pl., Los Angeles; Pangborn Plbg. & Htg. Co., 1135 E. Florence Ave., Inglewood, Calif.; Merit Plbg. & Htg., 10913 Venice Blvd., Los Angeles; Murray Co., Gardena, Calif.; Assoc. Auto Fire Protection Co., Bakersfield, Calif.; C. W. Schmid 231 W. Front St., Missoula, Mont.

**CENTRAL PORCELAIN CO.,** Railroad St., Columbiana, Ohio—Weingart & Lustig, 1567 E. 25th St., Los Angeles 11.

**CENTRAL TRANSFORMER CORP., P. O. Box 1753, Pine Bluff, Ark.—Robert A. Young & Co., 3901 San Fernando Road, Glendale, Calif.; F. M. Nichols Co., 714 Harrison St., San Francisco; Shaffer & Nelson, 139 S.E. Taylor, Portland, 312 Occidental Ave., Seattle, and W. 1835 Broadway, Spokane; Hubert Kaub & Co., 1025 Santa Fe Dr. Denver; McGillan Sales Co., P. O. Box 4013, Albuquerque; Gates Co., 822 Continental Bank Bldg., Salt Lake City. (See ad, p. 101)**

**CENTURY ELECTRIC CO.,** 1806 Pine St., St. Louis, Mo.—Branch Offices: 555 Monadnock Bldg., San Francisco; 1855 Industrial St., Los Angeles; 3420 E. Marginal Way, Seattle 4; 1238 N. W. Glisan, Portland 9; East 800 Front Ave., Spokane 2; Agents: Mark G. Mueller, 1644 Blake St., Denver 2; J. E. Redmond Supply, 625 W. Madison Ave., Phoenix; Stevens Sales Co., 1482 Major St., Salt Lake City 14.

**CENTURY LIGHTING, INC.,** 521 W. 43rd St., New York, N. Y. — Wm. Ashton, 50 Hawthorne, San Francisco; Edward L. Peterson Co., 709 Bank of America Bldg., San Diego 1; Al C. Slater, 9011 15th Ave. N. E., Seattle; Gregg N. Cloos, 977 Jackson St., Denver 4; Rugar Electric, 517 Tumbleweed Lane, Las Vegas, Nev.

**CERTIFIED FLEXIBLE COUPLINGS, INC.,** 39 North Bond, Mt. Vernon, N. Y.—Pacific Pump, Oakland, Calif., and Portland, Ore.; Brooks Equipment, San Francisco; Denver Equipment, Denver.

**CHAMPION DeARMENT TOOL CO.,** S. Main, Meadville, Pa.—J. J. Brown Co., 257 S. Spring St., Los Angeles, and 420 Market St., San Francisco; Geo. M. Sullivan & Son, Rt. 6, Box 200, Port Orchard, Wash.; Wm. L. Knoyer Co., 138 W. 12th Ave., Denver 4.

**CHAMPION LAMP WORKS,** 330 Lynnway, Lynn, Mass.—Branch Offices: 650 19th St., San Francisco, and 326 S. San Pedro, Los Angeles 13.

**CHANCE CO., A. B., Plant and Home Office at 210 North Allen St., Centralia, Mo.—Branches and ServiCenters: 815 Tennessee St., San Francisco 7; Dwight E. Argo, Regional Vice President and Sales Manager; 4527 Loma Vista Ave., Los Angeles 58; 1534 First Avenue South, Seattle 4 and 158 West 6950 South, Bountiful, Utah.**

**CHAPMAN VALVE MFG. CO.,** Indian Orchard, Mass. —Branch Offices: 564 Bryant St., San Francisco, and 2941 East 11th St., Los Angeles.

**CHARLESTON RUBBER CO.,** Stark Industrial Park, Charleston, S. C.—Brenton Equipment Co., 374 Brannan St., San Francisco; Sanderson Safety Equipment Co., 816 S. W. Hawthorne Blvd., Portland; Safety & Supply Co., 115 Blanchard St., Seattle; Guardian Safety Equipment Co., 7223 S. Main St., Los Angeles; R & M Sales, 2214 S. Clayton, Denver.

**CHASE BRASS & COPPER CO.,** 236 Grand St., Waterbury 20, Conn.—Branch Offices: 5101 Colorado Blvd., Denver 16; 6500 E. Washington Blvd., Los Angeles 54; 230 Shaw Rd., South San Francisco, and 1957 First Ave. So., Seattle 4.

**CHASE-SHAWMUT CO., 374 Merrimac St., Newburyport, Mass.—Garnett Young & Co., in following cities: 3775 S. Broadway, Los Angeles; 390 Fourth St., San Francisco; 1928 First Ave., So., Seattle; 1238 N. W. Glisan, Portland, and 1400 N. 32nd, Phoenix; Allen B. Carpenter Co., 1314 Wazee St., Denver. (See ad, p. 19)**

**CHASE & SONS, INC.,** 26 Spruce St., North Quincy, Mass.—Brill Electric Sales, 446 Bryant St., San Francisco; Jack Payne Co., 1101 E. 5th St., Los Angeles; Yarbarough Sales Co., 2636 Mission St., San Marino, Calif.

**CHELSEA FAN & BLOWER CO., INC.,** 639 South Ave. Plainfield, N. J.—John A. Scott, 1823 S. San Pedro, Los Angeles 15; Charles A. Gillet Co., 1587 Valota Rd., Redwood City, Calif.; Pete Bach, 1233 Twelfth Ave., Portland 9.

**CHERRY ELECTRICAL PRODUCTS CORP.,** 1650 Deerfield Road, Highland Park, Illinois—Harris-Koetke Sales Co., 204 E. Hillside Blvd., San Mateo, Calif.; Walter Corman, 7432 W. 80th St., Los Angeles.

**CHESTER CABLE CORP.,** Oakland Ave., Chester, N. Y.—Rutkin Electric Sales Co., 744 Kohler St., Los Angeles; J. H. Stumph, 1000 4th Ave. So., Seattle; Carlos W. Stone 2003 Parley's Blvd., Salt Lake City; Slaybaugh & Thompson, 100 W. 13th Ave., Denver; J. W. Marsh Co., 1258 Fitzgerald Ave., San Francisco, and 4216 West Jefferson Blvd., Los Angeles 16.

**CHESTON COMPANY, FRANK C.,** 60 Park Place, Newark, N. J.—W. Montelius Price Co.,; 524 First Ave., Co., Seattle; Caesar Baldassari, 420 Market St., San Francisco.

**CHICAGO COMMUTATOR CO.,** Wheeling Road and Exchange Ct., Wheeling, Ill.—Roy Silverman, 1316 N. Laurel Ave. Los Angeles 46; Wesco Elec'l Distributors, 184 S. Western Ave., Los Angeles 4.

**CHICAGO EXPANSION BOLT CO.,** 1388 W. Concord Pl., Chicago, Ill.—Owen-Brink Company, 1006 Lowman Bldg., Seattle; H. H. Hobelman, 225 Kansas St., San Francisco; Dillon Stevens & Co., 1348 Venice Blvd., Los Angeles; Paul R. Spencer Co., 4000 York St., Denver, and 2520 S. State St., Salt Lake City.

**CHICAGO PNEUMATIC TOOL CO.,** 6 E. 44th St., New York City—H. P. Hansen, 6935 Bandini Blvd., Los Angeles 22; A. B. Rudstrom, 855 Bryant St., San Francisco 3; E. K. Hubbard, 2901 First Ave. So., Seattle 4; Stearns Rogers, 660 Blake St., Denver.

**CHICAGO STANDARD TRANSFORMER CORP.,** 3501 W. Addison, Chicago, Ill.—W. Bert Knight, 10373 W. Pico, Los Angeles; Don H. Burcham Co., 510 N. W. 19th, Portland, and 422 First Ave. West, Seattle; E. L. Berman, 450 9th St., San Francisco; Ronald G. Bowen, 721 S. Broadway, Denver, and 2228-A San Maeto Blvd. Albuquerque; Moulthrop & Hunter, 156 11th St., San Francisco.

**CHISHOLM-MOORE HOIST DIV., COLUMBUS McKINNON CHAIN CORP.,** Tonawanda, New York—T. F. Wallace, 320 Tenth St., San Francisco 3, and 475 Huntington Drive, Booth Bldg., Room 22, San Marino, Calif.

**CHRISTIE ELECTRIC CORP.,** 3410 W. 67th St., Los Angeles 43, Calif.—C. R. Dalton Associates, 1037 Laurel St., San Carlos, Calif.; Samuel N. Stroum Co., 1612 Broadway, Seattle 22; Parrish Electronics, 1810 S. St. Paul, Denver 10; David G. DeHaas Co., 3651 Garrison St., San Diego 6.

**THE CINCINNATI TIME RECORDER CO.,** 1733 Central Ave., Cincinnati, Ohio—Cinti Time Recorder, 1925 Maple Ave., Bakersfield, Calif., and 149 California St., San Francisco 11; Time Equip. Co., 1956 S. Figueroa, Los Angeles and 906 Third Ave., Seattle 4; Frank E. Wilbur Co., 1835 Van Ness Ave., Fresno; Lee Brothers, 1111 "J" St., Mo-


## OUR COMPLETE LINE WILL SAVE YOUR TIME AND MONEY!

CEIL HEAT

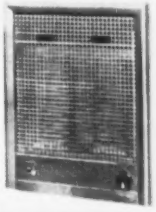
A real savings is seen when you buy all your electrical heating equipment from a single source. This, plus guaranteed quality and labor saving features assures you of more savings when you specify CEILHEAT.

*The Mark of Quality in Electric Heating*

**RADIANT CABLES**

DRI-CEIL for dry wall
ARISTOCRAT for plaster
AJAX for concrete

To meet the requirements of different types of construction, CEILHEAT manufactures 3 different electric radiant heating cables.

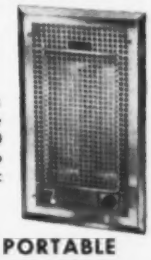


**WALL UNIT HEATERS**

4 sizes — 10 models — 1000 to 6000 watts — completely automatic.

**BATHROOM WALL HEATERS**

A 2 part unit (wall box and heating unit) — One size — 9 models — 120 and 240 Volts — 750 to 1500 Watts — Automatic or manual controls.



**PORTABLE HEATERS**

4 sizes (1, 2, 3 and 4 element units) — seven models — 208 and 240 Volts — 2000 to 4800 Watts — completely automatic.

**BASEBOARD HEATERS**

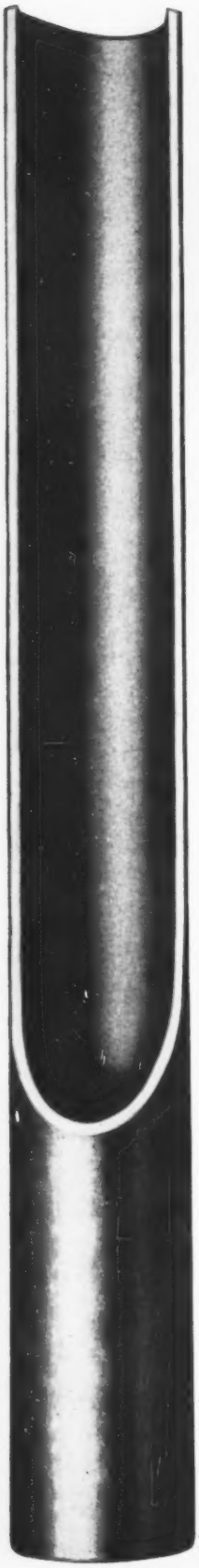
5 lengths (32" to 120") — 12 models — 120, 208 and 240 Volts — 500 to 2000 Watts — Thermostatically controlled (baseboard or wall). Additional sections: inside and outside corners, receptacle thermostat sections.

CEILHEAT manufactures the most complete line of electric heating equipment in the nation.

CEILHEAT is a registered trademark identifying only genuine CEILHEAT products.

**CEILHEAT, INC.**

**KNOXVILLE, TENNESSEE M**



# SPECIFY CLIFTON CONDUIT

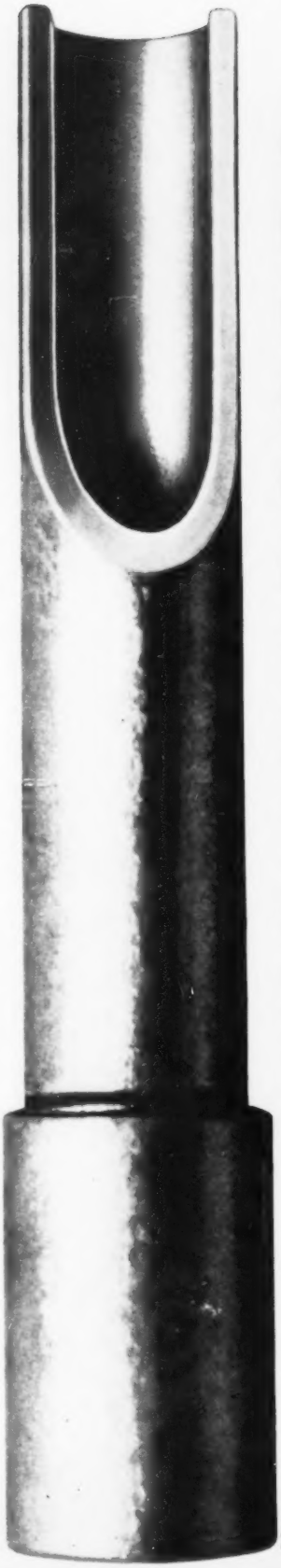
## The conduit with built-in quality

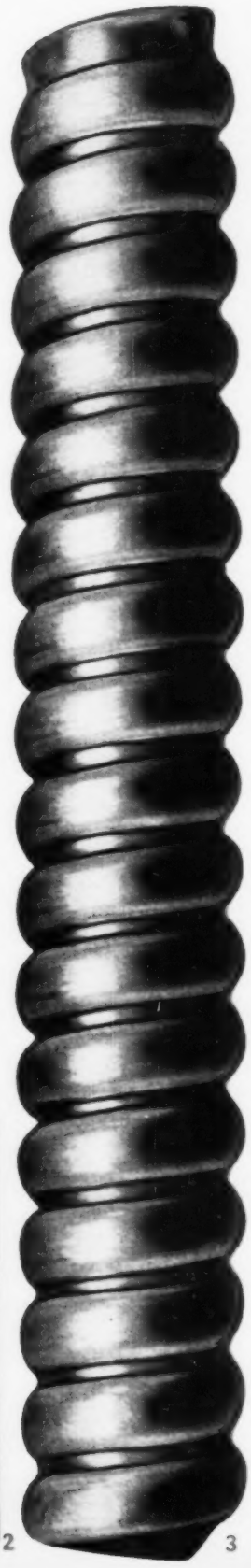
**1** **EMT** (Electrical Metallic Tubing) the only hot-dipped galvanized tubing—inside and out for complete protection •flat, clean, continuous weld for smooth interior surface and ease of pulling during installation.

**2** **RIGID CONDUIT** made of the finest steel available • Clifton's exclusive process for hot-dipped galvanizing guarantees a uniform zinc protective coating ... inside and out • the finest rigid conduit made. Clifton Rigid Conduit is approved by Underwriter's Laboratories, Inc. and conforms with Federal Specification WW-C581C and ASA Specification C-80.1-1953. Clifton EMT is approved by Underwriter's Laboratories, Inc. and conforms with Federal Specification WW-T-806B and ASA Specification C-80.3-1953. RIGID CONDUIT ELBOWS, COUPLINGS, AND NIPPLES in a full range of sizes • are manufactured of the same fine high quality steel as RIGID CONDUIT • hot dipped galvanized inside and out.

**3** **FLEXIBLE STEEL CONDUIT** really flexible and crush-resistant for easier and faster installations • manufactured under Clifton's rigid controls from purchase of high quality steel tape to finished product • smooth inside surface assures you trouble free pulling during installation. Clifton Flexible Steel Conduit is approved by Underwriter's Laboratories, Inc. and conforms with Federal Specification WWC-556. Other quality products by Clifton: Bushed Armored Cable; Unarmored Service Entrance Cable; (CLIFTX) Non-Metallic Sheathed Cable; CLIFTALL-UF; Building Wire —TW, RHW, RR.

**CLIFTON CONDUIT CORPORATION**
A Division of General Cable Corporation
3300 Eastbourne Ave., Baltimore 24, Md.





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desto; Gerbert Dist. Co., 1159 California St., Denver 4; Alder Street Clock Shop, 251 S.W. Alder St., Portland 4; National Service Co., 2317 4th Ave., N., Billings; Fisher's, P. O. Box 1616, Boise; Idaho Typewriter Exchange, 323 W. Center St., Pocatello; Technical Services Co., 2430 E. Washington, Phoenix; Time & Instrument Co., 57 Richards St., Salt Lake City.

**CIRCLE A W PRODUCTS CO.,** 1706 Lapham Dr., Modesto Calif.—(See Alwait Co.)

**CIRCLE F. MFG. CO.,** P. O. Box 591, Trenton, N. J.—Keeler White Co., in following cities: 302 N. W. 4th Ave., Portland; 1041 Sixth Ave., South, Seattle; L. S. Reed & Co., 1018 Lawrence St., Denver; Lighting Parts, Inc., 109 New Montgomery St., San Francisco, and 191 Jefferson Blvd., Los Angeles, (Lighting Mfgrs. Only); F. M. Nicholas Co., 714 Harrison St., San Francisco; Logan & Stone, 1485 Bayshore Blvd., San Francisco; Maddox Sales Co., 914 E. Third St., Los Angeles and 420 South 3rd Ave., Phoenix.

**CIRCLE WIRE & CABLE CORP., 5500 Maspeth Ave., Maspeth, New York—Brill Electric Sales, 446 Bryant St., San Francisco; Electric Agencies, 506 Second Ave., Seattle; Elkins Electric Agency, 144 S. Mission Road, Los Angeles.**

**CLARE & CO., C. P.,** 3101 Pratt Blvd., Chicago 45, Ill.—Branch Office: 6047 Hollywood Blvd., Los Angeles; E. L. Berman Co., 450 9th St., San Francisco 3; C. B. Parsons & Co., 3028 First Ave., Seattle 1; R. E. McClendon, 915 Yale S.E., Albuquerque, N. M.

**CLARK CONTROLLER CO.,** 1146 E. 152nd St., Cleveland 10, Ohio—Branch Office: The Clark Controller Co., 4755 E. 49th St., Los Angeles, and 72 E. 3rd Ave., San Mateo, Calif.; C. W. Silver, 550 W. 7th South St., Salt Lake City; Peterson Co., 4949 Colorado Blvd., Denver 16; A. L. Polich & Associates, 734 N. W. Glisan St., Portland; H. M. Denny Co., 111 W. Harrison St., Seattle 99; Associated Engineers, 511 Hawkins Road, El Paso.

**CLARKEN CO., THE,** 658 E. Elliott Ave., St. Louis 22, Mo.—W. E. Kirk Co., 415 Wall St., Los Angeles; C. E. Riggs Inc., 422 N.W. 8th Ave., Portland 9, and 408 Occidental Ave., Seattle 4.

**CLAROSTAT MFG. CO., INC.,** Washington St., Dover, N. H.—Perlmuth Electronics & Assoc., 5057 W. Washington Blvd., Los Angeles; W. H. Connors, 375 Birch St., Denver; Sam Stroum, 1612 Broadway, Seattle 22; Bill Kolans Co., 219 California Dr., Burlingame, Calif.

**CLECO** (See Commercial Lighting Equip. Co.)

**CLEVELAND CRANE & ENG. CO.,** Cleveland Tramrail Div., 5866 E. 289th St., Wickliffe, Ohio—Cleveland Tramrail Calif. Co., 870 Market St., San Francisco, and 6435 Corvette St., Los Angeles; Cleveland Tramrail Denver Co., 1700 Fifteenth St., Denver, Colo.; Cleveland Tramrail Utah Co., 334 W. 17th St., Salt Lake City; Nelson J. Leonard, 5764 28th Ave. N. E., Seattle; N. C. Sherman, Ltd., 1156 W. Pender St., Vancouver, B. C.

**CLEVELAND DIESEL ENGINE DIV., GMC,** 2160 W. 106th, Cleveland, Ohio—Branch Offices: 870 Harrison St., San Francisco, 433 Marine Ave., Wilmington, Calif., 3676 East Martins, Portland; Evans Eng. & Equipt., 4300 11th Ave., N. W., Seattle.

**CLIFTON CONDUIT CO., Div., General Cable Corp., 3300 Eastbourne Ave., Baltimore 24, Md.; Michel Bros., 1015 E. 16th St., Los Angeles; Baxter Co., 101 Kansas St., San Francisco; Northwestern Agencies, 4130 First Ave., So., Seattle; Northwest Sales Co., 1603 N. W. Johnson, Portland. (See ad, p. 18)**

**CLIFTON MFG. CO., INC.,** 34 Topalian Mattapan, Boston 26, Mass.—Harold M. Ross, 420 Market St., San Francisco; Reitz Sales Co., 1324 Bellaire St., Denver; M. Levin, 205 N. W. 10th, Portland; Eugene T. Sanson, 4050 E. Olympic Blvd., Los Angeles.

**COAST ELECTRIC & MFG. CO.,** 1733 N. E. 7th Ave., Portland—Branch Offices: Eugene, Seattle and Spokane.

**COAST LIGHTING PRODUCT CO.,** 320 Judah St., San Francisco.

**COBRA METAL HOSE,** 5059 S. Kedzie Ave., Chicago, Ill.—John Maddox Sales Co., 914 E. Third St., Los Angeles 13, and 420 Market St., San Francisco.

**COBRA WOOD TREATMENT CORP.,** 124 E. 40th St., New York City 16, N. Y.—Bridgeman Construction Co., Albuquerque, N. M.

**COCHRANE CORPORATION,** 17th St. Below Allegheny Philadelphia, Pa.—B. F. Soffe, Western Sales Mgr., 767 S. Harvard Blvd., Los Angeles; C. C. Moore & Co., Engineers, 450 Mission St., San Francisco, and following cities: 1111 Wilshire Blvd. Los Angeles; 409 Luhrs Bldg., Phoenix; 1120 Failing Bldg., Portland, and 417 Smith Tower, Seattle. Hank Thurstin Co., 475 Acoma St., Denver 4. C. H. Spencer Co., 210 W. 33rd South, Salt Lake City 15, Honolulu Elec. Products Co. Ltd., 630 Piikoi, Honolulu 9, Hawaii.

**COFFEY OVERHEAD DOORS, INC.,** 4829 W. Pico Blvd., Los Angeles 19 Calif.

**COIL WINDING EQUIP. CO.,** Oyster Bay, N. Y. Tri-State Supply Corp. in following cities: 544 S. San Pedro, Los Angeles, 554 Bryant St., San Francisco, 322 Occidental, Seattle.

**COLE & CO., INC., C. W.,** 2560 Rosemead Blvd., El Monte, Calif.—Dan H. Radke Co., 754 Natoma St., San Francisco; Wm. Benndorf Co., 221 E. Camelback Rd., Phoenix; Edw. L. Peterson Co., 709 Bank of America Bldg., San Diego 1; The Norwest Co., 330 Second Ave. West, Seattle 99; W. H. Cress Co., 201 Concord Bldg., Portland 4, Ore.

**COLE ELECTRIC COMPANY,** 8439 Steller Dr., Culver City, Calif.—Fred W. Carlson, 1201 Dexter Seattle 9; A & A Supply Co., 114 Morningside N.W., Albuquerque, N. M.; K. M. Ryals Co., 46[illegible] Market St., San Francisco; Aviation Products, 105[illegible] Yuba St., Aurora 8, Colo.; W. A. Cashin & Frank B. Tipton, 3222 Hill St., San Diego, Calif.; M. E. Gilbert Co. (Aircraft), 1608 Centinela Ave., Inglewood, Calif.

**COLLYER INSULATED WIRE CO.,** 249 Roosevelt Ave. Pawtucket, R. I.—The Baxter Co., 101 Kansas St. San Francisco 3; Bruce Emmett, 830 S.E. Alder St. Portland, and 1016 First St., So., Seattle; No[illegible] 5923 Drumheller, Spokane, and 190 W. 1st E. Farmington, Utah; Collyer Elecc. Wire Sales Co. 2800 E. 12th St., Los Angeles.

**COLSON CORPORATION,** Jonesboro, Ark.—Colson Equipment & Supply Co., Los Angeles, San Francisco, Oakland, Calif.; R. H. Brown Co., Seattle Portland and Boise.


SHAWMUT'S

**SILVER-PLATED Line**

*New Protection for Modern Circuits*

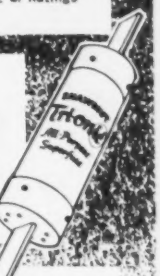
To meet the ever-increasing load-demands now being made on both industrial and household circuits, Chase-Shawmut offers the following:

**SILVER-PLATED ONE O-T TIME®**

Standard of the industry, these fine fuses fit any standard base or terminal. Precision made in uniform quality, they have low watt loss and run cool. Silver-plated contacts at no extra cost. Approved by U. L. Ratings range from 0-600 Amps for 250 and 600 V. circuits.

**SILVER-PLATED *Tri-onic*®**

This is an all-purpose, dual element fuse with a built-in interrupting capacity of 25,000 Amps A.C. Tri-onic handles short-circuits 2½ times greater than ordinary fuses with the same ratings. Prevents motor burnouts, and "outage." Ideal for bus plug-in duct, busways, feeders, motor control panels and branch circuits. It runs "cool," has long time-delay and low watt loss. Blows at 286° F.; 500° lower than zinc links. Available in 141 normal current ratings, ranging from 1/10 to 600 Amps — for both 250 and 600 V. circuits. Silver-plated contacts at no extra cost. Ask for bulletin 506-C.



**SILVER-PLATED *Time* t-d *delay*®**

A simple, sturdy, dependable device with the best time-delay of any renewable fuse — even in the higher current ranges. Also provides maximum protection in overload zone. The fastest, easiest renewable on the market. Links or fuses available in ratings from 0 to 600 A, 250 and 600 V. Silver-plated contacts at no extra cost. Ask for bulletin 500.

**C-Q-T AND *Trionet***®

Modern fuses for modern household circuits. They are selective-acting plug fuses that protect against branch circuit faults without blowing higher rated mains. CQT for appliance and lighting circuits. TRIONET for heavy appliance, power tools, motor starting and entrance circuits. Foolproof and faultless with dependable time delay. Dependable circuit protection even when wiring is inadequate.

Inspectors and contractors have been recommending SHAWMUT with confidence since 1893.

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**Subsidiary of I-T-E CIRCUIT BREAKER CO.,**

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*Amptrap*® *Tri-onic*® *t-d* C-Q-T® TRIONET® ONE O-T TIME

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Air Break and Hook Stick Disconnect Switches



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Fluorescent Starters
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**UNIVERSAL MFG. CO.** —
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**COLUMBIA CABLE & ELECTRIC CORP., 255 Chestnut St. ,Brooklyn, N. Y.—Frank H. Bran Co., 607 E. 6th St., Los Angeles; The Sanderlin Co., 129 First Ave. W., Seattle; 56 S. E. Belmont St., Portland; The Magnes Co., Inc., 44 Berry St., San Francisco.**

**COLUMBIA ELECTRIC & MFG. CO.**, N. 2310 Fancher Way, Spokane, Wash.— W. J. Ashton, 50 Hawthorne St., San Francisco; Phillips & Ford, 1315 E. Third St., Los Angeles; H. A. Gardner, 575 Dexter Horton Bldg., Seattle; Ron Giedt, N. 2310 Fancher Way, Spokane; Cooper Lighting Sales, Billings; Arty W. Clark, 74 W. 4th South, Salt Lake City; Thorle J. Vieau, 1871 S. Broadway, Denver; C. James Vitus, Phoenix.

**COLUMBIA ELECTRIC MFG. CO.**, 4519 Hamilton Ave., Cleveland 14, Ohio—The James L. Kearns Co., Inc., 6055 N.E. Glisan, Portland 13; Belilove Company, 420 Market St., San Francisco 11; Brenner-Fiedler & Associates, 7563 Melrose Ave., Los Angeles 46.

**COLUMBIA ELECTRIC MFG. CO.**, 275 Steuart St., San Francisco, Calif.—Calhoun & Poxon Co., 5459 Alhambra Ave., Los Angeles.

**COLUMBIA-GENEVA STEEL DIV.**, U. S. Steel Corp., R. W. Seely, V. P. (Chicago Sales), Equitable Life Bldg., San Francisco 4—F. S. Howard, Dist. V. P., 2087 E. Slauson Ave., Los Angeles; M. H. Freedman, Dist. V. P., 2345 N. W. Nicolai St., Portland 8, and Tower Bldg., Seattle; R. H. Maddan, Jr., Dist. V. P., Equitable Life Bldg., San Francisco; Alex Walker, Jr., Mgr. Sales, Walker Bank Bldg., Salt Lake City.

**COLUMBIA METAL BOX CO.**, 260 E. 143rd St., New York City 51—George A. Gray Co., 2720 17th St., San Francisco.

**COLUMBIA PRODUCTS, INC.**, Wrightsville, Penna.—Electric Agencies, Inc., 506 Second Ave., Seattle 4.

**COMAR ELECTRIC CO.**, 3349 W. Addison, Chicago 18, Ill.—M. A. Stolaroff, 4622 W. Slauson Ave., Los Angeles 43; David H. Ross Co., 534 El Camino Real, San Carlos; George E. Harris & Co., Inc., 444 Dexter Horton Bldg., Seattle 4.

**COMBUSTION CONTROL DIV.**, Electronics Corp. of America, 718 Beacon St., Boston 15, Mass.—Branch Office: 1485 Bayshore Blvd., San Francisco. Representatives: Automotive Control & Equipment Co., 1925 Blake St., Denver, and 4607 Lomas Blvd., Albuquerque; W. R. Norte Co., 2225 North East Broadway, Portland; Cone and Wallace, 650 W. Vermont Ave., Phoenix; Leonard Slusser, 318 Dooly Bldg., Salt Lake City; R. H. Liniger Co., 1500 Westlake Ave. North, Seattle; East Point Sales, West 905 Riverside Ave., Spokane.

**COMBUSTION ENGINEERING, INC.**, 200 Madison Ave., New York—Branch Offices: 510 W. 6th St., Los Angeles; 155 Sansome St., San Francisco; Skinner Bldg., Seattle 1; Joy & Cox, Inc., 2124 Broadway, Denver 5, and 415 Judge Bldg., Salt Lake City 11.

**COMMERCIAL ELECTRIC CORP.**, 1197 McArthur Highway, Newark, N. J.—Guy deLeuze Co., 1923 Bryant St., San Francisco.

**COMMERCIAL ENCLOSED FUSE CO OF N. J.**, 6812 Polk St., Guttenberg, N. J.—Electric Agencies, 618 2nd Ave., Seattle; Agencies Co., 836 Traction Ave., Los Angeles.

**COMMERCIAL FILTERS CORP.**, 2 Main St., Melrose, Mass.—Montgomery Bros., 1122 Howard St., San Francisco; 1053 S. Olive St., Los Angeles; 911 Western Ave., Seattle; 1632 N. W. Johnson St., Portland; 5103 N. Hawthorne, Spokane.

**COMMERCIAL LIGHTING EQUIPMENT CO.**, 8636 Graham Ave., Los Angeles 2, Calif. — Martin Noack, 681 Market St., San Francisco.

**COMMERCIAL PLASTICS CO.**—Wayne C. Wells, 6055 N. E. Glisan, Portland.

**COMPCO CORP., MITCHELL LIGHTING DIV.**, 1800 N. Spaulding, Chicago 47, Ill.—Dan Harvey, 501 E. 773 N. Bountiful, Utah; Henry G. Lehl, 14280 S. W. Uplands Ave., Oswego, Ore.

**COMMERCIAL REFLECTOR & MFG. CO.**, 3109 Maple Ave., Los Angeles, Calif.

**COMMONWEALTH ELECTRIC & MFG. CO.**, 83-105 Boston St., Boston, Mass.—Montgomery Brothers in following cities: 1122 Howard St., San Francisco; 1053 S. Olive St., Los Angeles; 1632 N. W Johnson St., Portland; 911 Western Ave., Seattle

**COMMUNICATION PRODUCTS CO., INC.**, Highway 79, Marlboro, N. J.—General Electric Supply Co., and Graybar Electric, all principal cities.

**CONDULFOR CORP.**, 13560 Lorain Ave., Cleveland 11, Ohio—Fred D. Benz Co., 520 4th St., San Francisco; Hugh Sheeter, 1417 Georgia St., Los Angeles.

**CONDUIT NIPPLE MFG. CO.**, 1455 Spring Garden Ave., Pittsburgh, Pa.—George A. Gray Co., 2720 17th, San Francisco 10; Pacific Electric Sales Co., 140 S. E. 28th Ave., Portland; Reitz Sales Co., 1324 Bellaire St., Denver; Hayjax Co., 436 Colyton St. Los Angeles 13.

**CONDUIT PIPE PRODUCTS CO., Div. of Harsco Corp., 153 W. Fulton St., Columbus, Ohio—J. J. Schaller, 5330 Alhambra Ave., Los Angeles; Slaybaugh-Thompson Co., 100 W. 13th Ave., Denver; Eckert Lloyd Co., 1225 Sixth St., San Francisco; Keller-White Co., 322 N.W. 4th Ave., Portland 9, and 1041 Sixth Ave. S., Seattle 4.** **(See ad. p. 82)**

**CONNECTICUT HARD RUBBER CO.**, 407 East St., New Haven 9, Conn.—Branch Office: 504 Main St., El Segundo, Calif.; Miller Gasket Co., 2113 E. Florence Ave., Huntington Park, Calif.; Western Fibrous Glass Prod. Co., 4423 Fruitland Ave., Los Angeles and 739 Bryant St., San Francisco 7; R. Hurwich Co., 2546 10th St., Berkeley 2; A. B. Boyd Co., 763 E. 14 St., Los Angeles and 1235 Howard St., San Francisco 3.

**CONNECTICUT TELEPHONE & ELECTRIC CORP.**, 70 Britannia St., Meriden, Conn.—Rollins Electric Co., 804½ S. Atlantic Blvd., Monterey Park, Calif.; Selo Electric Const. & Eng. Corp., 1050 N. 38th St., Seattle; Arthur & Allen, 420 Market St., San Francisco.

**CONNOR ENGINEERING CORP.**, Shelter Rock Lane, Danbury, Conn.—Representatives: Fred W. Berger, 57 Post St., San Francisco 4; Arthur Forsyth Co., 2800 15th Ave. West, Seattle 99, and N. 120 Division St. Spokane, Wash.; Herman & von Rosenberg, 1051 11th St., Denver 4; Tenair, Inc., 1029 N. 1st St., Phoenix; Air Cond. Supply, 137 S. Anderson, Los Angeles 33.

**CONOFLOW CORP.**, 2100 Arch St., Philadelphia, Pa. Milton Frank Co., 420 Market St., San Francisco, Branom & Leeland Instrument Co., 2137 Second Ave., Seattle 1, and 6019 N. E. Union Ave., Portland 11; G. D. Pribble Co., 5416 E. Beverly Blvd., Los Angeles 22; Darling Co., Wheat Ridge, Colo., Control Equip. Co., 323 W. 14th St. So., Salt Lake City.

**CONSOLIDATED DIESEL ELECTRIC CORP.**, 880 Canal, Stamford, Conn. — Consolidated Diesel Western, 15519 Lanark, Van Nuys, Calif.

**CONSOLIDATED WESTERN STEEL DIV.**—United States Steel Corp., P. O. Box 2015, Terminal Annex, Los Angeles 54, Calif.—Branch Offices: 120 Montgomery St., San Francisco; 2421 California Ave., Fresno; 1729 Exchange Bldg., Seattle; 1710 Oak St., Bakersfield; 600 W. Grant St., Phoenix, P. O. Box 390 Provo, Utah.

**CONTINENTAL-DIAMOND FIBRE CORP.**, S. Chapel St., Newark 14, Del.—Sales Office and Warehouse 2600 Santa Fe Ave., Los Angeles 11; Marwood Limited, 357 9th St., San Francisco 3; 320 E. Third St., Los Angeles 13; 1714 First Ave., Portland 4; Shefler-Kahn, 240 South 1st Ave., Phoenix

**CONTINENTAL ELECTRIC EQUIPMENT CO.**, 205 W. 4th St., Cincinnati, Ohio—Arthur & Allen, 420 Market St., San Francisco 11; Muth-Richards Co., 1804 Bush Pl., Seattle 44; Murphy-Hain Co., 2133 Bay St., Los Angeles 21; Ralph L. Mooney, 411 S. First St., Phoenix; Donal Co., Box 7013, Portland 19; Electrical Sales C., Box 49, Sugarhouse Sta., Salt Lake City; Ralph B. Black, 721 Loma Vista Dr. N.E., Albuquerque; Colorado Western Sales Co., Box 4133, So. Denver Sta., Denver 9.

**CONTINENTAL RADIANT GLASS HEATING CORP.**, 1 E. 35th St., New York City—Glassheat of Arizona, 2143 No. Country Club Rd., Tucson; Joe Howe Elec., 4682 E. Olive, Fresno; Davis-White Co., 17032 Aurora Ave., Seattle 33; Glassheat Co. of Longview, 1023 15th Ave., Longview; Glassheat of Southern Oregon, 619 E. Jackson Blvd., Medford; Glassheat Inc. of Spokane, 9 E. Empire, Spokane; Radiant Glassheat of Tacoma, Inc., 3710 6th Ave., Tacoma 6; Continental Radiant Heat, Inc., 5635 S. E. Foster Road, Portland; V. King, 632 Trestle Glen, Oakland, Calif.; A. C. Emrich, P. O. Box 313, Longview, Wash.

**CONTINENTAL RUBBER WORKS**, 1953 Liberty Ave. Erie, Pa.—Branch Office: 3121 E. 12th, Los Angeles, Calif.

**CONTINENTAL WIRE CORP.**, 322 N. Cherry St. Ext., Wallingford, Conn.—Tri-State Supply Co., 544 S. San Pedro, Los Angeles, and 554 Bryant St., San cisco, and 322 Occidental, Seattle; Pacific Electric Sales Co., 140 S. E. 28th Ave., Portland, Ore.; Ralph B. Black, 4716 Trumbull, S. E., Albuquerque, N. W.; Bucky Harris Co., 3440 Overload Ave., Los Angeles (Military wire & cable).

**CONTROL CO. OF AMERICA**, Schiller Park, Ill.—Branch: 139 Illinois St., El Segundo, Calif.

**CONTROL CORPORATION**, 718 Central Ave., N. E., Minneapolis, Minn.—Garland-Affolter Eng. Co., in following cities: 417 South Hill St., Los Angeles; 58 Sutter St., San Francisco; 2603 Western Ave., Seattle; 1233 N. W. 12th Ave., Portland; Slaybaugh-Thompson Co., 100 W. 13th Ave., Denver; Frank W. Gorman, P. O. Box 223, El Paso; Gorman Engineering Co., P. O. Box 743, Albuquerque, N. M., and Box 10065, Phoenix.

**CONTROL PANEL CORP.**, 517 W. Monroe St., Chicago, Ill.—Central Station Equip. Co., 2323 Aviation Highway, Tucson, Ariz.

**CONTROL PRODUCTS, INC.**, 306 Sussex, Harrison, N.J.—Carl E. Holmes Co., 107 N. Ave. 64, Los Angeles; Don Smith Sales Co., 2320 N. 45th St., Seattle; Price Eng. Sales Assoc., 4611 Homestead, Littleton, Colo.

**CONTROLS CORP. OF AMERICA**, A P Controls Div., 2450 N. 32nd St., Milwaukee 45, Wis.—Branch: 139 Illinois St., El Segundo, Calif.; Dick Morton, 211 Polhemus Ave., Atherton, Calif.; Fred MacDonald, 1622 100th Ave. N.E., Bellevue, Wash.

**CONTROLS CORP. OF AMERICA**, Soreng Sales Div., Schiller Park, Ill.—Jackson Edwards Co., 1401 Lankershim Blvd., North Hollywood, Calif.

**COOK ELECTRIC CO.**, 2700 N. Southport Ave., Chicago 14, Ill.—Kellogg Switchboard & Supply, 23 Broderick Road, Burlingame, Calif. Branch: Glendale 4, Calif., 302-B So. Brand Blvd., Mr. J. W. Wilson, Mgr.; Jack Pruzan Co., 109 Jackson, Seattle; Leich Sales, 11401 West Pico, Los Angeles.

**COOPER HEWITT ELECTRIC CO.**, 720 Grand St., Hoboken, N. J.—Shannon Luminous Materials Co., 7356 Santa Monica Blvd., Hollywood 46, Calif.; Leo Kaufman, 72 Sacramento St., San Francisco.

**COOK'S SONS, INC., ADAM**—Arthur & Allen, 420 Market St., San Francisco; Krause Engineering, 741 E. Artesia, Long Beach.

**CO-OPERATIVE UTILITIES CO., INC.**, 4637-39 Mulberry St., Philadelphia 24, Pa.—Electric Agencies, 6420 Salem St., Oakland; H. G. Rising, 151 N. Vermont Ave., Los Angeles, and Fletcher Elec'l Specialty Co., 4150 S. Main St., Los Angeles; Advance Tool Supply Co., 3056 24th St., San Francisco; L. L. Burror, 1126 8th Ave., Oakland; Electrical Specialty Co., 158 11th St., San Francisco; 2406 First Ave. South, Seattle 4, and 2026 Arapahoe St., Denver.

**T. J. COPE DIV.—ROME CABLE CORP.**, 3rd and Walnut Sts., Collegeville, Pa.—George E. Honn Co., 420 Market St., San Francisco; Hamilton Associates, 1236 Elati St., Denver; Randolph Engineering Corp., 12202 E. Garvey Ave., El Monte, Calif.; Fred W. Carlson, 1201 Dexter Ave., Seattle 1; 935 N. W. 12th Ave., Portland, and 614 Utah Ave., Butte.

**COPES-VULCAN DIV.**, Blaw-Knox Co., 939 W. 26th St., Erie, Pa.—Franklin Eng. Co., 406 S. Main St., Los Angeles 13; John Morley & Co., 1001 Tennessee St., San Francisco; Pacific Steam Control, 4003 Aurora Ave. Seattle; C. H. Spencer & Co., Salt Lake City; Hank Thurston Co., 475 Acoma, Denver.

**COPPERWELD STEEL, Glassport, Pa.—Branch Offices: A. B. Leach, Dist. Mgr., 755 Filip Road, Los Altos, Calif.; G. R. Craig, Dist. Mgr., P. O. Box 796, Bellevue, Wash. (See ad, p. 22)**

**COPPERWELD STEEL CO., FLEXO WIRE DIV.**, 70 W. 1st St., Oswego, N. Y.—E. Jordan Brooks Co., 6601 Telegraph Rd., Los Angeles 22, and 571 Howard St., San Francisco.

**CORDOMATIC DIVISION**, Vacuum Cleaner Corp. of America, 17th and Indiana Ave., Philadelphia, Pa. R. S. Boreham Co., 1206 Maple St., Los Angeles 15; Jack Dowling Co. 2437 Monta Vista Place, Seattle 19; C. E. Moffet Co., 975 Indiana St., San Francisco 7.

**CORNELL DUBILIER ELECTRIC CORP.**, South Plainfield, N. J.—George E. Honn Co., 420 Market St., San Francisco; W. Bert Knight, 10377 West Pico, Los Angeles; W. J. Cottrell, 4000 S. W. Macadam Ave., Portland 1; Muth-Richards Co., 1804 Bush Place, Seattle 44; Tinling & Powell, 7 E. 706 Sprague Ave., Spokane 8; Meyron Swendsen, Box 156, Boise, Ida.

**CORNING GLASS WORKS**, Corning, N. Y.—Branch Office: 1355 Market St., San Francisco; 1125 West 6th St., Los Angeles; 10714 N.E. 24th St., Bellevue, Wash.; Leo Kaufmann, 72 Sacramento St., San Francisco.

**CORNISH WIRE CO., INC., 50 Church St., New York City—J. M. Fincke, 1848 N. Main St., Los Angeles 31; The Sanderlin Co., 129 First Ave. W., Seattle 99; G. M. Howard, 1301 6th St., San Francisco.**

**CORONA MFG. CORP.**, 11300 Tuxford St., Sun Valley, Calif.—Sold direct.

**COTTRELL PAPER CO., INC.**, Rock City Falls, N. Y. —Tri-State Supply Corp., in following cities: 544 S. San Pedro St., Los Angeles; 554 Bryant St., San Francisco; 322 Occidental Ave., Seattle 4, and Electric Motor Supply Co., 1646 Blake St., Denver; J. R. Christiansen Agency, 247 East 5th So., Salt Lake City 2.

**COUCH CO., INC., S. H.**, 3 Arlington St., North Quincy, Mass.—Garnett Young & Co., in following cities: 390 4th St., San Francisco; 3775 Broadway So., Los Angeles; 1928 First Ave. So., Seattle; 1238 N.W. Glisan St., Portland, and 1400 N. 32nd St., Suite B, Phoenix; Gregg N. Cloos Co., 977 Jackson St., Denver.

**CRAMER CONTROLS CORPORATION, INC.**, Centerbrook, Conn.—Western Electro-Mechanical Co., 300 Broadway, Oakland; Allen I. Williams Co., 126 W. 12th Ave., Denver 2, and 3221 Silver Ave. S. E., Albuquerque; Milton A. Stolaroff, 4622 W. Slauson Ave., Los Angeles 43; Eicher & Co., P. O. Box 9054, Seattle 99.

**CRANE HOIST ENGINEERING CORP.**, 6515 Salt Lake Ave., Bell, Calif.—Branch: 426 Hester St., San Leandro, Calif.; Mechanical Equip., 222 S. Hinton Ave., Scottsdale, Ariz.; Norman Rupp Co., 103 S.W. Front Ave., Portland 4; Patten Eng. Co., 1795 Sheridan, Denver 14.

**CRESCENT INSULATED WIRE & CABLE CO.**, 319 N. Olden Ave., Trenton, N. J.—Through local distributors.

**CRESCENT TOOL CO.**, 200 Harrison St., Jamestown, N. Y.—Sold through all leading hardware jobbers.

**CRESCENT VALVE CO.**, 611 Shirley Ave., El Monte, Calif.—Distributor, Barksdale Valves, 5125 Alcoa Ave., Los Angeles 58.

**CROSS & CO., W. W.**, Jaffrey, N. H.—Duane C. Lyle, 4085 Palo Alto, Calif.; John C. Adams, 1110 S. Atlantic Blvd., Los Angeles; Frank J. Martin, 821 E. 86th St., Seattle.

**CROUSE-HINDS CO., Wolf and 7th North Sts., Syracuse, N. Y.—Branch Offices: H. L. White, Commercial Vice-President, and H. E. Riggs, Regional Mgr., 510 Petroleum Bldg., Los Angeles; W. C. Schafer, Regional Mgr., 370 Brannan St., San Francisco; L. F. Busse, Regional Mgr., 566 Broad St., Seattle; F. W. Waker, 212 N.W. 14th Ave., Portland; F. J. Reinhardt, Jr., 1156 Bannock St., Denver; J. R. Petree, 212 Beason Bldg., Salt Lake City.**

**CROWN INDUSTRIAL PRODUCTS CO.**, 713 Amsterdam St., Woodstock, Del.—Tri-State Supply Corp., 544 S. San Pedro, Los Angeles 13, and 318 Occidental Ave., Seattle; Electric Motor Supply, 1646 Beach St., Denver 2; Insulation & Wires, Inc., 6515 E. Fleet St., Los Angeles 22; J. R. Christensen, 247 E. 5th St. Salt Lake City 2; Hughes Co. Aerosol) 1759 Victory Blvd., Glendale, Calif., and 564 College Ave., Palo Alto, Calif.

**CRUCIBLE STEEL CO. OF AMERICA**, Oliver Bldg., Pittsburgh 30, Pa.—Branch Offices: G. T. Fraser, Western Sales Mgr., 6033 E. Bandini Blvd., Los Angeles 22, 2050 Bryant St., San Francisco, P. O. Box 5084, Denver 17, 2755 First Ave. South, Seattle 4, 2330 N. W. Raleigh St., Portland 10.


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| **Phoenix:** | 1700 North 22nd Ave. ALpine 2-2371 |
| **Tucson:** | 212 South Park Ave. MAin 2-6439 |

**CALIFORNIA**

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| **Bakersfield:** | 282 "K" St. FAirview 4-4755 |
| **Fresno:** | 101 Van Ness Ave. ADams 7-4175 |
| **Long Beach:** | 800 West 16th St. HEmlock 2-2911 |
| **Los Angeles:** | 210 Anderson St. ANgelus 3-7282 |
| **Oakland:** | 1911 Union St. GLencourt 1-5451 |
| **Oceanside:** | 805 N. Tremont St SAratoga 2-2141 |
| **Sacramento:** | 1900 - 14th St. HIgate 4-8830 |
| **San Bernardino:** | 655 South "H" St TUrner 9-1051 |
| **San Diego:** | 720 State St. BElmont 3-1361 |
| **San Jose:** | 1376 N. Tenth St. CYpress 2-9090 |
| **San Francisco:** | 1750 Alameda St MArket 1-5131 |
| **Santa Ana:** | 301 French St. KImberly 3-8309 |
| **Santa Barbara:** | 329 S. Salinas St. WOodland 5-1013 |
| **Van Nuys:** | 15520 Cabrito Road STate 2-9600 |

**COLORADO**

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| **Colorado Springs:** | 630 West Vermijo Ave. MElrose 4-3701 |
| **Denver:** | 104 Wazee Market TAbor 5-7111 |

**IDAHO**

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| **Boise:** | 1325 Idaho St. BOise 3-2594 |

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| **Portland:** | N.E. 60th and Banfield ATlantic 8-5661 |

**UTAH**

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| **Salt Lake City:** | 336 North Third West St. ELgin 9-8771 |

**WASHINGTON**

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| **Seattle:** | King & Occidental Sts. MUtual 2-0123 |
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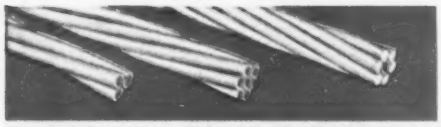
Alumoweld was developed to cut costs and improve performance of overhead ground wire, ACSR conductors, guy and messenger strand. Its thick aluminum covering —25% by area—gives Alumoweld corrosion resistance equal to solid aluminum wire and 33% of the electrical conductivity.

When used as overhead ground wire, remember that Alumoweld is just as strong as steel, is 18% lighter in weight, and has 3 times the conductivity. These advantages permit greater mid-span clearance, and make Alumoweld excellent for relaying and for discharging lightning currents to ground. For guys and messengers, Alumoweld Strand provides the full strength of steel and will last far longer.

These valuable properties also pay off when Alumoweld is used as core wire for ACSR conductors. Here, Alumoweld eliminates the hazard of dissimilar metals in contact, provides increased conductivity and gives you an extra-high-strength core wire that matches the life of the solid aluminum wires. For the complete story, send for Bulletin E.D. 3000.



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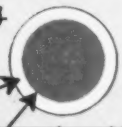

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**Alumoweld's thick aluminum covering will never crack, flake or peel. Applied by an entirely new cladding process—the controlled atomic weld —the heavy aluminum covering and the high-strength steel core are inseparably interlocked by a ductile weld that remains permanent under all operating conditions.**

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**CURTIS DEVELOPMENT & MFG. CO.**, 3246 N. 33rd St., Milwaukee, Wis.—A. J. Nelson, Box 5502, Denver; C. B. Parsons, 3028 First Ave., Seattle; James M. Krotozyner, 544 Market St., San Francisco; Walter W. Corman, 7432 W. 80th St., Los Angeles 45; Distributor: Calif. Wholesale Elec. Co., 2548 Yates Ave., Los Angeles 22.

**CURTIS-ALLBRITE LIGHTING, INC., Curtis Lighting Div., 6135 W. 65th St., Chicago, Ill.—All-Brite Lighting Div., 352 Shaw Road, South San Francisco, Calif. Branch Offices: 810 Monterey Pass Road, Monterey Park, Calif.; 1238 Weller St., Seattle; 4820 E. Missouri, Denver.**

**CUTLER-HAMMER, INC.**, 234 N. 12th St., Milwaukee, Wis.—Branch Offices: 2130 3rd St., San Francisco; 1331 T St., Sacramento; 155 Van Ness Ave., Fresno; 126 W. 5th Ave., Denver; 1320 Queen Anne Ave. Medford, Ore.; 165 S. First West, Salt Lake City 1; E. 1717 Thurston Ave., Spokane 34; 630 Security Bldg., Phoenix.

**D. & H. ELECTRIC CO.**, 2827 Altura Ave., La Crescenta, Calif.—G. M. Howard Associates, 1301 6th St., San Francisco 7; John M. Fincke, 1848 North Main, Los Angeles; W. H. Cress Co., 201 Concord Bldg., Portland.

**DAGE TELEVISION DIVISION**, W. 10th St., Michigan City, Ind.—Monson Electric Co., 360 Sixth St., San Francisco and 1420 W. 9th St., Los Angeles 15; Mutual Elec. Supply, 1905 Jackson St., Seattle 14; B. C. Keach, 207 Hindry Ave., Inglewood, Calif.

**DAILEY BODY CO.**, 440 High St., Oakland, Calif.

**DAVEY TREE SURGERY**, Russ Bldg., San Francisco—Branches: Los Angeles, San Diego, Sacramento, Fresno, Belmont, La Grande, Ore., Reno, and Las Vegas, Nev.

**DAY-BRITE LIGHTING, INC.**, 5411 Bulwer Ave., St. Louis 7, Mo.—Assembly Plant, 530 Martin Ave., Santa Clara, Calif.; Regional Sales Office: Day-Brite Lighting of Calif., 111 N. La Cienega Blvd., Beverly Hills, Calif.; J. H. Brundage, 31 Geary St., San Francisco 4; Edward L. Peterson Co., 709 Bank of America Bldg., San Diego; Alan Humphrey, Mason Bldg., Room 505, Fresno, Calif.; Stevens Sales Co., P. O. Box 2338, Salt Lake City; R. M. Camnitz, P. O. Box 4166, Portland 8; Jas. Hallek 4204 Palo Duro N. E., Albuquerque, N. M.; J. A. Reeves, 1290 Colorado Blvd., Denver; Wm. Benndorf Co., 221 E. Camelback Rd., Phoenix, Ariz.; D. A. Olson Co., 4000 Union Bay Place, Seattle 5; L. J. Van Nostrand, 1400 N St., Sacramento, Calif.; Matt A. Cabot, P. O. Box 3708, Honolulu, Hawaii.

**DAYNA LIGHTING, INC.**, New Britain, Pa.—Stearns Sales, Box 945, Rt. 6, Tacoma; Norman Ross, 4227 N. Monte Vista, Scottsdale, Ariz.

**DAYSTROM, INC., DAYSTROM-WESTON SALES DIV.**, Frelinghuysen Ave., Newark, N. J.—Branch Office: 831 Airport Way, Seattle 4; 2001 S. Grand Ave., Los Angeles and 147 Tenth St., San Francisco; Peterson Co., 4949 Colorado Blvd., Denver 16; J. E. Redmond Supply Co., 625 W. Madison St., Phoenix.

**DAYSTROM ELECTRIC CORP.**, 753 Main, Poughkeepsie, N. Y.—Jack Berman, 1141 So. La Cienega Blvd., Los Angeles; Meyer & Ross, 113 10th St., San Francisco; James Dooley, 3606 Magnolia Blvd., Seattle; Robert W. Cox, 1141 E. Bates Ave. Parkway, Englewood, Colo.

**DAYTON ELECTRIC MFG. CO.**, 126 S. Oakley Blvd., Chicago 12, Ill.—W. W. Grainger, Inc., in following cities: 519 Potrero Ave., San Francisco; 1401 E. 3rd St., Los Angeles; 2200 Adeline St., Oakland; 1001 9th Ave. S., Seattle; West 22 Main St., Spokane; 2410 N. Mississippi Ave., Portland; 527 N. Third, W., Salt Lake City; 144 W. Market, San Diego; 1022 N. 21st Ave., Phoenix; 2520 Larimer St., Denver 5.

**DAYTON RUBBER CO.**, 1486 Lakewood Ave., S. E., Atlanta, Ga.—Branch Office: Frank H. Bran, 607 E. 6th St., Los Angeles; J. M. Chapman Co., 290 Ninth St., San Francisco; Gunnine-Tate Co., 123 Queen Anne Ave., Seattle, and 139 S. E. Taylor, Portland.

**DAZOR MFG. CORP.**, 4481 Duncan Ave., St. Louis 10, Mo.—General Electric Supply Co., and Westinghouse Electric Supply Co., all principal cities.

**DE BOTHEZAT FANS DIV.**, American Machine and Metals, Inc., East Moline, Ill.—E. H. Langdon Co., 72 Vine St., Seattle; Hubert Kaub & Co., 1025 Santa Fe Dr., Denver; L. F. Church Co., 750 Natoma St., San Francisco; C. & S. Equip. Co., 2103 S. San Pedro, Los Angeles; Sales Eng. Co., Inc., 526 W. 8th South, Salt Lake City; H. W. McKenzie Co., 100 N. E. Holladay, Portland.

**DEE ELECTRIC CO.**, 1101 N. Pauline St., Chicago 22, Ill.—Claude Michael Agency, 703 W. Ivy St., Glendale, Calif.; Tri-State Supply Corp., 544 S. San Pedro St., Los Angeles.

**DeLIGHTS, INC., OF CALIFORNIA**, 2221 Potrero, El Monte, Calif.—R. W. Patton, 444 Dexter Horton Bldg., Seattle 4; M. A. Wagner, 1075 Broadway, Belmont, Calif.; J. W. Reynolds, 1481 So. Main, Salt Lake City 15.

**DELTA ELECTRIC CO.**, 33rd and Nebraska Sts., Marion, Ind.—Lynn & Brooks, 1485 Bayshore Blvd., San Francisco; 3055 Wilshire Blvd., Los Angeles; Room 212, Colorado Bldg., Denver 2; and 1990 Alaskan Way, Seattle 1.

**DELTA-STAR ELECTRIC DIVISION** (H. K. Porter Co., Inc.), 2437 Fulton St., Chicago 12, Ill.—Branch Office: G. A. Palka, District Mgr., 542 Broadway, Broadway Arcade Bldg., Los Angeles 13 and 925-926 Securities Bldg., Seattle; C. E. Ingalls & Sons, 681 Monadnock Bldg., San Francisco; John E. Eliggren, P. O. Box 388, Salt Lake City 10; Daley Elec. Sales Co., Inc., 1825 E. Jefferson St., Phoenix and 5751 E. Whittier St., Tucson; Mt. States Machinery Co., 1526 Blake St., Denver; Associated Engineers, P. O. Box 600, El Paso, Tex.

**DELTA-STAR ELECTRIC DIV., ELECTRIC SERVICE WORKS**, H. K. Porter Co., Inc., 17th and Cambria Sts., Philadelphia, Pa.—Branch Office: G. A. Palka, Dist. Mgr., 542 Broadway, Broadway Arcade Blvd., Los Angeles 13 and 925-926 Securities Bldg., Seattle 1; Mt. States Machinery, 1526 Blake St., Denver 2; Daley Electric Sales Co., Inc., Phoenix and 5751 E. Whittier St., Tucson; John E. Eliggren, P. O. Box 388, Salt Lake City 10; C. E. Ingalls & Sons, Monadnock Bldg., San Francisco, Calif.; Associated Engrs., P. O. Box 600, El Paso, Texas.

**DENISON ENGINEERING, DIV.**, American Brake Shoe Co., 1160 Dublin Rd., Columbus, Ohio—Branch Office: 1651 E. El Segundo Blvd., Hawthorne, Calif.

**DENISON MFG. CO. R. B.**, 102 St. Clair Ave., N. W., Cleveland 13, Ohio—Hundley Co., 3282 Fletcher Dr., Los Angeles; McCarthy-Hood Associates, 1485 Bayshore Blvd., San Francisco; Graybar Electric Co., Los Angeles and San Francisco; H. D. Campbell Co., 220 9th North, Seattle.

**DESCO MFG. CO.**, 551 W. Glenoaks Blvd., Glendale 2, Calif.—Graybar Electric Co., all principal cities.

**DESERT AIR LAMP CO.**, 1518 N. Western Ave., Los Angeles 27, Calif.—McCalls Desert-Air Lamp Co., 1331 Park St., Alameda, Calif.

**DESIGNERS FOR INDUSTRY, INC.**, 4241 Fulton Parkway, Cleveland 9, Ohio—R. H. Schwindler, 107 West Huntington Dr., Suite D, Arcadia, Calif.; Brown Technical & Associates, 130 S. Yarrow St., Denver 26.

**DESPATCH OVEN CO.**, 619 S. E. 8th St., Minneapolis, Minn.—Lombard Smith, 714 W. Olympic Blvd., Los Angeles 15; Braun Corp., 2260 E. 15th St., Los Angeles; Matheson-Doherty Co., 225 Shaw Rd., So. San Francisco; Beverly Hills Surg. Supply, 8345 Wilshire Blvd., Beverly Hills; Farnes & Martig, 417 N. E. Couch St., Portland; Grant Call (Bakery), 1817 Ashbrook Ave., Long Beach; Western Surgical Supply, 661 S. Burlington Ave., Los Angeles; Atlas Supply (Bakery), 411 W. Washington Blvd., Los Angeles; Insulation & Wires, Inc., 2240 Washington Blvd., E., Los Angeles 21; Collins Baking Machinery Co., 4219 Grove St., Oakland; Insulation & Wires, Inc., 1077 Howard St., San Francisco; Fernholtz Machinery Co., 8466 Melrose Pl., Los Angeles 6.

**DETJEN CORPORATION**, Electrocuting Fly Screen Div., 1-3 Main St., Pleasant Valley, N. Y.—Distribution thru all General Electric Supply Company branches.

**DETROIT COIL CO.**, 2435 Hilton St., Ferndale, Mich.—Hundley Co., 3282 Fletcher, Los Angeles 15; C. B. Parsons & Co., 3028 First, Seattle 1.

**DETROIT ELECTRIC FURNACE**, Div. Kuhlman Elec. Co., 1000 26th St., Bay City, Mich.—Otto H. Rosentreter Co., 8411 State St., South Gate, Calif.

**DIALIGHT CORP.**, 60 Stewart Ave., Brooklyn 37, N. Y.—F. W. Moulthrop Co., 575 Tenth St., San Francisco; Jack Berman Co., 1141 S. La Cienega Blvd., Los Angeles; Burt C. Porter Co., 1209 Poplar Place, Seattle.

**DIAMOND EXPANSION BOLT CO., INC.**, Garwood, N. J.—Branches: 462 E. 4th St., Los Angeles and 336 Ritch St., San Francisco; L. S. Reed & Co., 1018 Lawrence St., Denver; M. D. Johnston Co., 307 Occidental Ave., Seattle; Leich Sales Corp., 11401 W. Pico Blvd., Los Angeles.

**DIAMOND PRODUCTS CO., INC.**, 335 Prospect, Elyria, Ohio—E. B. Cook Co., 1063 Howard St., San Francisco.

**DIAMOND WIRE & CABLE CO.**, 445 Park Ave., Sycamore, Ill.—Branch Offices: 274 Harbor Way, South San Francisco; 6415 E. Fleet St., Los Angeles 22; 213 N. 1st Ave., Phoenix; 155 Van Ness, Fresno, Calif.; 1231 N. W. Hoyt St., Portland, and 2208 White-Henry-Stuart Bldg., Seattle; L. D. Hood Sales, 1133 W. 8th Ave., Denver.

**DICKE TOOL CO.**, Downers Grove, Ill.—Maydwell & Hartzell, Inc., 870 Tennessee St., San Francisco; 427 W. 5th St., Los Angeles; 306 Dexter Ave., Seattle; 121 S. Monroe, Spokane 8; 324 S. 2nd Ave., Phoenix; 2318 N. W. Vaughn St., Portland 10, Ore.; Jack Pruzan Co., 109 Jackson St., Seattle 4; Pole-Line Distributing Co., 405 West 13th South, Salt Lake City.

**DIEHL MFG. COMPANY**, Finderne Plant, Somerville, N. J.—Branch: 808 S. Broadway, Los Angeles 14; Hayjax Co., 436 Colyton St., Los Angeles 13; Keeler White Co. (Fans), 615 Seventh St., San Francisco 3; Keeler-White-Portland, 322 N. W. 4th Ave., Portland 9; Keeler-White, Inc., 1041 6th Ave. So., Seattle 4; Artwel Electric, Inc., 1485 Bayshore Blvd., San Francisco (for Motors).

**DIELECTRIC PRODUCTS CO.**, 4830 McKnight Road, Pittsburgh 9, Pa.—Tri-State Supply Corp., 544 S. San Pedro St., Los Angeles, and 318 Occidental Ave., Seattle; Hodges & Glomb, 921 Bryant St., San Francisco.

**DINGS MAGNETIC SEPARATOR CO.**, 4740 W. Electric Ave., Milwaukee, Wis.—Samson Sales Co., 420 Market St., San Francisco; A. W. Nash, 2112 S. Atlantic Blvd., Los Angeles; Joseph F. Taraba Co., P. O. Box 5232, Portland.

**DIVISION LEAD CO.**, 7742 West 61st Place, Summit, Ill.—David Ross & Co., 534 El Camino Real, San Carlos, Calif.; Thomas L. Stevens Co., 5333 S. Sepulveda Blvd., Culver City, Calif.

**DODGE MFG. CORP.**, 508th Union St., Mishawaka, Ind.—Branch: L. O. Carroll, West Coast Mgr., 55 New Montgomery St., San Francisco; R. C. Kingsbury, 7744 Industry Ave., Rivera, Calif.; Marion Studebaker, 1011 Bayberry Rd., Oswego, Ore.; Don Leekey, 1483 S. Eudora, Denver.

**DOERR ELECTRIC CORP.** (Formerly Electro Machines, Inc.), Cedarburg, Wis.—Cox Sales & Engineering, 1819 W. Valley Blvd., Alhambra, Calif.; Monarch Corp., 2075 Williams St., San Leandro, Calif.; Donal Co., P. O. Box 7013, Portland; Caskey Engineering, 2200 First Ave., So., Seattle 4.

**DOLCO MFG. CO.**, 2350 Curry St., Long Beach 5, Calif.—(Direct from factory)

**DOLE VALVE CO.**, 1901 W. Carroll Ave., Chicago, Ill.—Branch: 6351 Wilshire Blvd., Los Angeles 48.

**DOLLINGER CORP.**, 20 Center Park, Rochester 3, N. Y.—J. C. McDougall Co., 520 1st Ave. South, Seattle 4.

**DOLPH CO., JOHN C.**, New Road, Monmouth Junction, N. J.—Tri-State Supply Corp., 544 S. San Pedro St., Los Angeles; 554 Bryant St., San Francisco; 322 Occidental Ave., Seattle; Clarence W. Silver Co., 550 W. 7th South St., Salt Lake City; Powell Electric Corp., 403 Haines Ave., N. W., Albuquerque; Electric Motor Supply Co., 1646 Blake St., Denver 2.

**DONGAN ELECTRIC MFG. CO.**, 2987 Franklin, Detroit, Mich.—Keeler-White Co., 615 Seventh St., San Francisco; 1041 Sixth Ave. So., Seattle; 322 N. W. Fourth Ave., Portland; Hayjax Co., 436 Colyton Ave., Los Angeles 13; S & W Electric, 2144 Welton St. Denver; Control Equipment, 323 W. 14th St., Salt Lake City; W. A. Roben, 1001 West lake, No., Seattle 9.

**DOSSERT MFG. CO., 249 Huron St., Brooklyn, N.Y. —The Curry Co., 305 King St., San Francisco; Matzinger-Johnson Co., 1329 Willow St., Los Angeles; Henry G. Lehl, 14280 S.W. Uplands Drive, Oswego, Ore.; R & M Sales, 2214 S. Clayton St., Denver.**

**DOW CORNING CORP.**, Midland, Mich.—Branch Offices: 3033 W. Mission Rd., Alhambra, Calif.; Representatives: C. D. LaMoree Co., 2433 Birkdale St., Los Angeles; 2216 Fifth St., Berkeley, Calif.; Tri-State Supply Co., 544 S. San Pedro, Los Angeles; 554 Bryant St., San Francisco, and 318 Occidental, Seattle; J. R. Christensen, 247 E. 5th S., Salt Lake City 11; C. E. Riggs, 317 N. W. Broadway, Portland.

**DOYLE VACUUM CLEANER CO.**, 225 Stevens S. W., Grand Rapids, Mich.—Harry C. Younger, 1169 Yocum St., Pasadena 3; Wm. T. Naylor, 780 S. Third West, Salt Lake City; Hank Moran, 3871 Piedmont Ave., Oakland; O. J. Thomas, 5905 S.W. Patton Rd., Portland 1.

**DRAKE MFG. COMPANY**, 4626 N. Olcott Ave., Chicago 31, Ill.—Wm. J. Purdy Co., 312 7th St., San Francisco; Fred F. Alleman Co., 1625 Blake Ave., Los Angeles; Fred H. Haight, 3212 Eastlake Ave., Seattle 2. Stocking Distributors: Radio Products Sales, 1501 S. Hill, Los Angeles 15; F. B. Connelly Co., 1015 Republican St., Seattle 9 and Seattle Radio Supply, Inc., 2117 Second Ave., Seattle 1.

**DREMEL MFG. CO.**, 2409 18th St., Racine, Wis.—Federated Sales Co., 1426 S. San Gabriel, San Gabriel, Calif.

**DRIVER COMPANY, WILBUR B.**, 1875 McCarter Highway, Newark, N. J.—Branch Office: 2378 Westwood Blvd., Los Angeles.

**DRIVER-HARRIS CO.**, 201 Middlesex St., Harrison, N. J.—Angus-Campbell, Inc., 4417 S. Soto St., Los Angeles 58, and 760 Tennessee St., San Francisco 7.

**DUAL-LITE CO., INC.**, 185 Front St., Bridgeport, Conn.—Fred W. Carlson, 1201 Dexter Ave., Seattle; Moralee W. Silver, 1771 East 9th South, Salt Lake City; Graybar Electric, Westinghouse Elec. Supply and General Elec. Supply, all principal cities.

**DUCT-O-WIRE CO.**, 6520 Bissell, Bell, Calif.—Arthur & Allen, 420 Market St., San Francisco, Calif.; Norman Rupp Co., 103 S.W. Front Ave., Portland, Ore.; Krause Eng., 741 E. Artesia, Long Beach.

**DuKANE CORP.**, St. Charles, Ill.—A. B. Loudermilk Co., 1539 Folsom St., San Francisco 3; Communications Co., 650 6th Ave., San Diego 1; Douglas Roesch, Inc., 1832 S. Flower St., Los Angeles 7; Stegecraft Industries, P. O. Box 4290, Portland 10; Signal Equipment Co., 2706 3rd Ave., Seattle 1.

**DUNCAN ELECTRIC MFG. CO.**, Davis-Ferry Road, Lafayette, Ind.—C. C. Blacksmith, P. O. Box 54, Covina, Calif.; Kitchen Electric Supply Co., Box 1831, Reno, Nev.; A & A Supply Co., 114 Morningside N. E., Albuquerque; W. H. Eddy Elec. Products, Inc., Box 1428, Phoenix; Shaffer & Nelson, 1001 S.E. Water Ave., Portland; 312 Occidental Ave., Seattle, and P. O. Box 198 Spokane, 1415 S. Main, Salt Lake City; Hamilton Associates, 1236 Elati St., Denver; Montana Electric Supply, P.O. Box 1317, Billings, Mont.; Artwel Elec., Inc., 1485 Bayshore Blvd., San Francisco.

**DUNTON CO., THE M. W.**, 7 Goff St., Providence, R. I.—Claude Michael Agency, 703 W. Ivy, Glendale 4, Calif.; Toole & Cunningham, 2845 Walnut St., Denver; Carlos W. Stone Co., 2003 Parley's Canyon Blvd., Salt Lake City.

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**DURO-TEST CORP.**, 2321 Hudson Blvd., North Bergen, N. J.—S. A. Goff, 1480 Egbert St., San Francisco, 607 So. Hill St., Los Angeles. Branch Offices: Seattle, Portland, Spokane, Salt Lake City, Phoenix, San Diego.

**DYMO CORP.**, 2546 Tenth St., Berkeley 10, Calif.—San Francisco: Electrical Specialty Co., 158 11th St.; Incandescent Supply Co., 647 Mission St.; Phillips & Edwards Elec. Corp., 265 Vermont St.; Insulation & Wires, Inc., 310 Shaw Road, South San Francisco. Los Angeles: California Wholesale Elec. Co., 2548 Yates Ave.; Electrical Specialty Co., 2820 E. 12th St.; Insulation & Wires, Inc., 6415 E. Fleet; Electrical Dist. Co., 1530 E. Washington; Electrical Specialty Co., 916 W. Adams, Phoenix; Western Elec. Dist. Co., 550 Evans Ave., Reno; H & E Elec. Supply Co., 110 N. Main St., Carlsbad, N. M.; Eoff Elec. Co., 556 Charnelton St., Eugene, 509 N. W. 10th Ave., Portland, and 156 N. Front St., Salem; Bean Elec. Co., 2222 Everett Ave., Everett, Wash.; Electric Specialty Co., 2406 First Ave., Seattle; Love Electric Co., 1914 Market St., Tacoma.

**DYNAMATIC DIVISION**, Eaton Mfg. Co., 3122 14th Ave., Kenosha, Wis.—T. C. Caskey, 2200 First Ave. So., Seattle 4; Monarch Supply Co., 55 New Montgomery St., San Francisco 5; Donal Co., P. O. Box 7013, Portland 19; Shaw Engineering Sales, P. O. Box 590, Pasadena 1; G. M. Wallace & Co., 324 Denham Bldg., Denver 2, P. O. Box 208, Butte, Mont., and Continental Bank Bldg., Salt Lake City.

**E J S CORP.**, 921 E. Pico Blvd., Los Angeles, Calif.—Marc Marcus, 921 E. Pico Blvd., Los Angeles; L. M. Baxter Co., 1238 N.W. Glisan, Portland.

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**EAGLE ELECTRIC MFG. CO., INC.**, 2310 Bridge Plaza South, Long Island City, N. Y.—M. Levin, 205 N.W. Tenth Ave., Portland; Brill Electric Sales, 446 Bryant St., San Francisco; D. Niemann, 432 Colyton St., Los Angeles; Fred E. Staible & Sons, 2046 Arapahoe St., Denver.

**EAGLE MFG. CO.**, 3508 Avalon Blvd., Los Angeles 11, Calif.

**EAGLE SIGNAL CORPORATION**, 202 20th St., Moline, Ill.—Bernard S. Hundley, 3282 Fletcher Drive, Los Angeles 65; Instrument Sales, 2137 Second Ave., Seattle 1; Sherman Nabaum, 4777 S. 13th East, Salt Lake City 7; Campbell & George Co., 1601 Cortland Ave., San Francisco 7; Peterson Co., 4949 Colorado Blvd., Denver 16.

**EASTERN SPECIALTY CO.**, 3617 N. 8th St., Philadelphia, Pa.—Best Linemen's Supply Corp., 541 First Ave. So., Seattle 4; C. C. Blacksmith, P. O. Box 54, Covina, Calif.; Sales Engineers, Inc., 211 Wazee Market, Denver; W. G. Mills, So. 1206 McClellan St., Spokane.

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**EMERSON-PRYNE CO.**, 206 N. Towne Ave., Pomona, Calif.—Branch Offices:1315 Howard St., San Francisco 3; 526 E. 12th St., Los Angeles; W. H. Cress Co., Concord Bldg., Portland 4; John W. Reynolds Co., 1481 S. Main St., Salt Lake City; Geer Sales 1223 Quivas St., Denver; Gordon W. Leursen & Sons, 1116 Dartmouth Dr. N. E., Albuquerque; Norwest Co., 330 2nd Ave. W., Seattle; Jerry Redburn, 2841 E. Osborn, Phoenix; Cochrane-Stephenson (Western), Ltd., 1324 Franklin St. Vancouver, B. C.

**EMPIRE CORP.**, 1566 South 83rd St., Milwaukee, Wis.—Nourse Equip. Co., 2300 Fourth St., Berkeley, Calif.; A. J. Nelson Co., P. O. Box 5502, Denver; Ed. Warburg Co. Inc., 1207 East 8th St., Los Angeles.

**EMPIRE METAL PRODUCTS CO., 5543 West Roosevelt Road, Chicago 50, Ill. — Sherman-Mitchell & Co., P.O. Box 49797, Los Angeles 49; Hamilton Associates, 1236 Elati St., Denver 4. (See ad, page 57)**

**EMPIRE DEVICES PROD. CORP.**, 37 Prospect St. Amsterdam, N. Y.—G. M. Gillett, 19690 19th N. E. Seattle 55; Carl A. Stone Assoc., Inc., 8971 National Blvd., Los Angeles 34; White and Co., 788 Mayview Ave., Palo Alto, Calif.; Williams & Assoc., Inc., 2261 S. Albion St., Denver 22.

**ENGINEERING ENTERPRISES, INC.**, 702 West 5th St., Charlotte, N. C.—Pacific Utilities Supply Co., 605 Third St., San Francisco 7.

**ENGLISH ELECTRIC EXPORT & TRADING CO., LTD.**, 750 Third Ave., New York 17, N. Y.—James I. Metcalf & Co., Inc., 1000 Second Ave., Seattle 4; 260 Kearny St., San Francisco, and 530 W. 6th St., Los Angeles; 414 Security Bldg., Phoenix, and 107 Sherlock Bldg., Portland.

**ERICO PRODUCTS, INC.**, 2070 E. 61st Pl., Cleveland, Ohio — Erico Products, Inc., 9771 Oma Place, Garden Grove, Calif. Distributors: Calif. Wholesale Elec. Co., 2548 Yates Ave.; Los Angeles; Martin Supply Co., 2100 S. San Pedro, Los Angeles; Pacific Utilities Supply Co., 605 3rd St., San Francisco; Landes, Zachary & Peterson, 275 Klamath St., Denver 23; Cascade Distributors, 1918 1st Ave. S., Seattle 4, and 1321 W. 2nd Ave., Spokane.

**ERICSON MFG. CO., THE**, 1660 Hayden Ave., Cleveland, Ohio—Suchman and Associates, 837 E. 4th Place, Los Angeles 13; Guenther & Tate, 825 Taylor Ave., Seattle 9; Marketing Services Co., Box 5162, Denver 17.

**ERICSSON CORP.**, 102 Park Ave., New York City, N. Y.—Calrepco, 1417 Georgia St., Los Angeles.

**ERIE ELECTRIC CO., INC.**, 120 Church St., Buffalo 2, N. Y.—R. W. Peterson, 103 N. Santa Anita, Arcadia, Calif.

**ERIE RESISTOR CORP.**, 644 W. 12th St., Erie, Pa.—Allen I. Williams Co., 124 W. 12th Ave., Denver; David H. Ross Co., 534 El Camino Real, San Carlos, Calif.; George Osborn, 12932 S. Weber Way, Hawthorne, Calif.

**ESCO MFG. CO.**, P. O. Box 1039, Greenville, Texas —Randolph Eng. Corp., 12202 E. Garvey Blvd., El Monte, Calif., and 1029 N. 1st St., Phoenix; Oliver B. Lyman Co., 55 New Montgomery St., San Francisco; Muth-Richards Co., 1804 Bush Pl., Seattle; M. A. Collins Co., P. O. Box 207, Vancouver, Wash.; Gregg N. Cloos Co., 977 Jackson St., Denver.

**ESS INSTRUMENT CO.**, 96 S. Washington Ave., Bergenfield, N. J.—Landes, Zachary & Peterson, 153½ W. 2nd S., Salt Lake City, and 275 Kalamath St., Denver 23; David A. Darling, 850 West Hastings St., Vancouver, B. C.; Crown Engineering Co., 113 S. Alvarado St., Los Angeles 57; Stillson Associates, 33 Meadowpart Ct., Orinda, Calif.; Sight and Sound, 4325 S. W. 96th Ave., Beaverton, Ore.; John Williams Co., 766 Dexter Horton Bldg., Seattle 4.

**ESSEX WIRE CORPORATION**, Fort Wayne, Ind.—Factory at Anaheim, Calif. Branch Offices: 274 Harbor Way, San Francisco; 6415 E. Fleet St., Los Angeles; 213 N. First Ave., Phoenix; 1231 N.W. Hoyt St., Portland.

**ESSEX WIRE CORP. OF CALIF.**, Anaheim, Calif. —District Offices and Warehouses: 274 Harbor Way, San Francisco; 6415 E. Fleet St., Los Angeles; 1231 N. W. Hoyt St., Portland.

**ESSICK MFG. CO.**, 1950 Santa Fe Ave., Los Angeles, Calif.—Eric F. Chemnitz, 1096 Yerba Buena Ave., Emeryville, Calif.; Edgar G. Hansen, 630 Security Bldg., Phoenix; A. B. Cline, 1227 South 13th East, Salt Lake City; William H. Fuller, 1038 Palm Ave., Whittier, Calif.; Hardesty-Favero & Co., Inc., 1731 1st Ave. S., Seattle; E. P. Murr, 2542 W. 28th Ave., Denver; J. O. Pike, 3813 Hillcrest Ave., El Paso, Texas.

**ESTERLINE-ANGUS, INC.**, P. O. Box 596, Indianapolis, Ind. — T. R. Routh Co., 1209 Capuchino Ave., Burlingame, Calif.; George L. Hoffman, 3007 S. W. Nebraska St., Portland; J. E. Redmond Supply Co., P. O. Box 869, Phoenix; C. H. Spencer, P. O. Box 1054, Salt Lake City; Brenner-Fiedler & Associates, 7563 Melrose Ave., Los Angeles; Eicher & Co., 5 West Harrison St., Seattle 99; Mt. States Machinery Co., 1526 Blake St., Denver 2.

**ETTCO WIRE & CABLE CORP.**, 75 Onderdonk Ave., Brooklyn, N. Y. —The McLoughlin Co., 811 E. 14th Place, Los Angeles; Keeler-White Co., 615 7th St., San Francisco; Smith & Thomas, 568 First Ave. So., Seattle.

**EUCLID ELECTRIC & MFG. CO.**, 50 Edwards St., Madison, Ohio—Representatives: P. J. Burrill, 2131 Washington Ave., San Leandro, Calif.; A. W. Nash Co., 2112 South Atlantic Blvd., Los Angeles 22. Star Machinery, 241 Lander St., Seattle 4; Distributors: Rundel Electric Co., 230 Adrian Rd., Millbrae, Calif.; General Electric Supply, P. O. Box 2859 Terminal Annex, Los Angeles; H. G. Rising Co., 151 N. Vermont Ave., Los Angeles; Ind. Elec. Service Co., 319 South 1 St., Aberdeen, Wash.; Central Station Equip., 2323 Aviation Hiway, Tucson.

**EUTECTIC WELDING ALLOYS CORP.**, 40-40 172nd St., Flushing, N. Y.—245 N. Sycamore Dr., San Gabriel; American Supply Co., Berkeley 2; Reymer Machine Co., Billings, Mont.; M. L. Foss Inc., Denver 1; Billmeyers Wholesale Distributors, Pocatello; The Galigher Co., Salt Lake City; Cragin & Co., Seattle; Gibson Welding Supplies, Spokane.

**EVERHOT MFG. CO.**, 57 S. 19th Ave., Maywood, Ill.—Los Angeles Stam & Stay. Co., 1500 S. Los Angeles St., Los Angeles; Patrick & Co., 560 Market St., San Francisco 4; C. O. Armstrong, 267 12th St., Oakland 7; Tacoma Rubber Stamp Co., 933 Commerce, Tacoma, Wash.

**EVERLEY COMPANY, PAUL S.**, 550 9th St., San Francisco, Calif.

**EVERSON ELECTRIC CO.**, 1126 Union Blvd., Allentown, Pa.—E. M. Schwem, 5313 S. Wilton Pl., Los Angeles 62.

**EVERSTICK ANCHOR CO., 9th and Kirkwood St. Fairfield, Iowa—Joslyn Pacific Co., San Francisco, Los Angeles, Seattle and Portland; Graybar Electric Co., Inc., San Francisco, Sacramento, Phoenix and Denver; Westinghouse Electric Supply Co., and General Electric Supply Co., all principal cities. Paul A. Douden Co., and Hendrie & Bolthoff, Denver. (See ad, p. 26)**

**EVERWARM, INC.**, 3600 Pleasant Ridge, Knoxville 16, Tenn.—Fred D. Benz Co., 520 Fourth St., San Francisco; Hugh X. Sheeter, 1417 Georgia St. Los Angeles.

**EXCEL ELECTRIC SERVICE CO.**, 2113 South Western Ave., Chicago 8, Ill.—Brenner-Fiedler & Assoc. 7563 Melrose Ave., Los Angeles; T. R. Routh Co. 1209 Capuchino Ave., Burlingame, Calif.; C. H. Spencer & Co., 210 W. 33rd South, Salt Lake City 15.

**EXECUTONE, INC.**, 415 Lexington Ave., New York City—Executone Southern California Corp., 1130 Fair Oaks Ave., South Pasadena, Calif.; Executone Company of Northern California, 455 Ellis St., San Francisco 2; Executive Systems Co., 222 S. W. Main St., Portland 4; 3230 Western Ave., Seattle 1; 154 S. Browne St., Spokane; P. O. Box 1849, Phoenix; 2601 E. 3rd Ave., Denver, and P. O. Box 96, Idaho Falls, Idaho.

**EXIDE INDUSTRIAL DIV.**, The Electric Storage Battery Co., 42 S. 15th St., Philadelphia, Pa. — Branches: 6150 - 3rd St., San Francisco 24; 1043 S. Grand Ave., Los Angeles 15, and 500 Wall St., Seattle 1; 1224 S. W. Morrison, Portland; Box 133 Murray Br., Salt Lake City; 617 Paulsen Bldg., Spokane; 234 Commonwealth Bldg., Denver; 916 W. Adams St., Phoenix.

**FAIRBANKS, MORSE & CO.**, Fairbanks, Morse Bldg., Chicago 5, Ill.—Branch Offices: 630 3rd St., San Francisco 7; 4535 S. Soto St., Los Angeles 58; 668 Lane St., Seattle 4; 105 S. E. Taylor, Portland 14; 4995 Colorado Blvd.; Denver 16; 153 W. Second South, Salt Lake City 1.

**FALCON EQUIPMENT CO.**, P. O. Box 255-E, New Brighton, Pa.—Montgomery Brothers in following cities: 1122 Howard St., San Francisco; 1632 N. W. Johnson, Portland; 911 Western Ave., Seattle, and 1053 S. Olive, Los Angeles; 5103 N. Hawthorne, Spokane.

**FANNER MANUFACTURING CO., Brookside Park, Cleveland, Ohio—A. L. Polich, Inc., 734 N. W. Glisan St., Portland; Slaybaugh-Thompson Co., 100 W. 13th Ave., Denver.**

**FANNO SAW WORKS**, 224 W. 8th Ave., Chico, Calif.—Sold by leading jobbers all cities. Linemen's Supply Corp. of Calif., 2704 S. Hill, Los Angeles; Best Linemen's Supply Corp., 541 First Ave. So., Seattle; Western Hardware & Tool Co. 122 10th St., San Francisco 3.

**FANSTEEL METALLURGICAL CORP.**, North Chicago, Ill.—Fansteel Metallurgical Corp., 1015 Hope St. South Pasadena, Calif.; D. H. Ross Company, 534 El Camino Real, San Carlos, Calif.; Avionics Liaison, Inc., Boeing Field, Seattle 8; Westates Electronics, 11334 West Playa St., Culver City, Calif.; J. C. Rowley & Co., 955 Folsom, Salt Lake City.

**FARGO MFG. CO., INC., 845 Main St., Poughkeepsie, N. Y.—Distributed by Line Material Industries 7105 S. Paramount Blvd., Pico-Rivera, Calif.; 5105 E. 39th Ave., Denver; 1333 N.W. 12th Ave., Portland; East 3303 Ferry St., Spokane; 1220 West Nickerson St., Seattle 99; 980 S. 6th West St. Salt Lake City; 360 Shaw Rd., So. San Francisco, Calif.; J. E. Redwood, 625 W. Madison St., Phoenix; El Paso Saw & Belting Co., 1701 Texas St. El Paso.**

**FARIES DIV.**, General Lamps Mfg. Corp., 450 N. 9th St., Elwood, Ind.—Abbott Distributing Co., 3327 La Cienega Pl., Los Angeles 16.

**FARNAM MFG. CO. INC.**, Sweeten Crk. Rd., Asheville, N. C.—E. A. Wilcox Co., 173 Utah Ave. So. San Francisco.

**FAST & CO., JOHN E.**, 3580 N. Elston Ave., Chicago 18, Ill.—W. S. Harmon Co., 121 N. Robertson Blvd., Beverly Hills, Calif.; Jack Kaufman, 12th 25th Ave., San Mateo, Calif.; C. F. L. Co., 1871 S. Broadway, Denver 10; Shefler-Kahn, 240 South 1st Ave., Phoenix.

**FAST-LOK MFG. CO.**, 67 Ash St., Bridgeport, Conn. —Walter E. Wallace Co., 435 Bryant St., San Francisco; John Allen Ware & Associates, 301 West G St., San Diego; Gregg N. Cloos Co., 1232 Santa Fe Dr., Denver 4; Jim Shirreffs Co., 3601 So. Broadway, Los Angeles 7.

**FEDDERS CORP.**, 58-01 Grand Ave., Maspeth 78, New York—Refrigerative Supply, Inc., 619 S.E. Sixth Ave., Portland 14; Armstrong Supply, 1948 S.W. Temple, Salt Lake City; Air Conditioning Dist., 1516 N. 7th Ave., Phoenix and 727 N.

# DEPENDABLE FISHER-PIERCE EQUIPMENT

## ...for outdoor lighting control

Model 6601A
Pole or crossarm mounting

Model 6607A
with pole top adapter

Model 6602A
Luminaire or slipfitter mounting
(1¼" top tap)

Model 6603A
Replacement plug-in for FP Model 64400GE

Model 6604A
Replacement plug-in for FP Model S-64400

Model 6600A ACTUAL SIZE

**NEW SERIES 6600A PHOTOELECTRIC CONTROLS —**
**tubeless, field-tested, low-cost.**

Rugged, reliable control fully tested in the field for five years; guaranteed for two years. Uses hermetically sealed cadmium sulfide photocell driving a specially-designed Sigma relay. Lightweight, measures only 2⅛" high x 3¹⁄₁₆" in diameter, easy to install. Three prong twistlock plug and removable sponge gasket conform with EEI-NEMA specifications for twistlock adaptations. Features include built-in lightning protection; delayed response to prevent accidental turn-off by lightning; fail-safe operation; and adjustable turn-on. Switches 1000 watts, operates on 105-135v, 50/60 cycle AC; standard turn-on 1.5 ± 0.5 foot-candles. Temperature range −55° to +70°C; humidity tested to 100%.

***Model 6600A*** (shown actual size) is the basic model in the series, fits bases up to 3" in diameter; ***Model 6607A*** fits wider mounting bases, up to 3⅛" in diameter. Both may be used with various Westinghouse, GE, Wheeler, Joslyn and other popular luminaires. With standard adapters and mounting hardware (see Models 6601A, 6602A, 6603A, and 6604A), 6600A Series controls meet a wide variety of mounting requirements.

**SERIES 63300C PHOTOELECTRIC CONTROL —**
**switching capacity up to 6000 watts; turn-on 1 to 1000 foot-candles.**

Electronic head enclosure is waterproof; plugs directly into meter socket . . . standard switching arrangements SPST, SPDT, DPST . . . fail safe operation . . . delayed circuit response to prevent false operation due to lightning . . . fuse and potentiometer checked or adjusted without removing enclosure . . . for 105-130 or 210-250 volt, 50/60 cycle operation; insulation level 4.5 KV.

FP

**FISHER PIERCE**

**PHOTOELECTRIC LIGHTING CONTROLS**

AN AFFILIATE OF SIGMA INSTRUMENTS, INC.

For descriptive bulletins on any of this equipment write to The Fisher-Pierce Co., 43A Pearl St., So. Braintree 85, Mass.

**SERIES 6100 CALIBRATOR**

. . . for checking and adjusting turn-on and turn-off points of nearly all types of photoelectric lighting controls. Easy to use . . . accurate . . . portable. Assures uniform turn-on settings, better control of burning hour schedules, thorough testing of units before installation; useful for trouble-shooting. Operates on 117 volts, 50/60 cycles AC; special adapter available for 220 volt operation.

**TYPE 250A MULTIPLE RELAY**

. . . for pilot wire control, cascading street lighting circuits, or industrial applications. Weatherproof, dependable, low-cost. Normally-open or normally-closed contacts; 30-ampere rating with maximum inrush of 300 amperes; 3000 watt lamp load; 105-130 volt, 50/60 cycle operation. Equipped with built-in expulsion-type lightning arrestor.

Main St., Las Vegas, Nev.; H. R. Basford Co., 235 15th St., San Francisco 3 and 3320 Leonis Blvd., Los Angeles 25; Air Purification, 4775 Fox St., Denver 16.

**FEDERAL LIGHTING CORP.**, 1425 Rockwell Ave., Cleveland, Ohio—C. B. Gratiot Co., 1282 Folsom St., San Francisco; Neil Winikoff, 2700 Beacon Ave., Seattle.

**FEDERAL PACIFIC ELECTRIC CO., 50 Paris St., Newark 1, N. J.—North Pacific Region: R. L. Lemman, Manager, 5835 Third St., San Francisco. Branch Offices: 5835 Third St., San Francisco; 1415 Elliott Ave. West, Seattle; 338 N. State St., Oswego, Ore.; W. 1207 College Ave., Spokane, Wash. South Pacific Region: Frank Weber, Manager, 3333 San Fernando Road, Los Angeles. Branch Offices: 3333 San Fernando Road, Los Angeles. Agents: M. Swendson, First National Bldg., Boise, Idaho; F. W. Gorman, Inc., 1330 N. 13th St., Albuquerque, N. M.; and 1710 Texas St., El Paso, Texas; Electrical Engineering and Sales Corp., 106 E. Pierce St., Phoenix, Ariz., and 2030 Texas St., El Paso, Texas; James E. Stephens Co., 49 North 2nd West St., Salt Lake City, Utah; Hamilton Asso., 1236 Elati St., Denver, Colo., and R. D. Florance & Asso., 2052 Humboldt St., Denver, Colo.**

**FEDERAL SIGN & SIGNAL CORP.**, 136th and Western Ave., Blue Island, Ill.—F. M. Nicholas Co., 714 Harrison St., San Francisco; Bruce-Emmett Co., 1016 1st Ave. So., Seattle, and 830 S.E. Alder St., Portland; Gregg N. Cloos, 977 Jackson St., Denver; Payne & Sloan, Inc., 1101 E. 5th St., Los Angeles 13.

**FEDERAL TELEPHONE AND RADIO CORP.**, 100 Kingsland Road, Clifton, N. J. — Branch Office: 15191 Bledsoe St., San Fernando. Maydwell & Hartzell, Inc., 870 Tennessee St., San Francisco 7; 427 W. 5th St., Los Angeles 13; 2318 N. W. Vaughn St., Portland 10; 306 Dexter Ave., Seattle 4; 324 So. 2nd Ave., Phoenix.

**FEDERATED METALS DIV., AMERICAN SMELTING AND REFINING CO.**, 120 Broadway, New York City 5, N. Y.—Sales Offices: 4010 E. 26th St., Los Angeles; 1900 N. W. 18th Ave., Portland 9; 700 Crandall Bldg., Salt Lake City 1; 101 Dakota St., Seattle 4, and 1901 Army St., San Francisco 24.

**FEEDRAIL CORPORATION**, 125 Barclay St., New York, N. Y.—Allied Industries, 412 Seaton St., Los Angeles 13; William R. Dunn, 1407 Russ Bldg., San Francisco 4; T. J. Vleau & Associates, 1871 S. Broadway, Denver 10.

**FELDMAN CO.**, 612 So. Wall St., Los Angeles 14, Calif.—Gerald Steinacher, 384 Solana Dr., Los Altos, Calif.; Leonard Robin, 1481 Alvira, Los Angeles; Herb Beatus, 13444 Crewe St., Van Nuys, Calif.; David Bloomfield, 530 Olympic Pl., Seattle; Harry Adelman, 450 S. Rexford Dr., Beverly Hills, Calif.; B. A. Zall, 13903 La Maida, Van Nuys, Calif.; Francis O'Donald, 5410 Russell, Los Angeles 27; John Koper, 1532 N. Bromley, La Puenta, Calif.

**FEMCO, INC.**, Irwin, Pa.—Branch Office: 2640 Broderick Ave., Duarte, Calif.; Industrial Physics & Electronics Co., 470 S. Tenth East St., Salt Lake City.

**FENWAL INCORPORATED**, Pleasant St., Ashland, Mass. — Branch Office: 111 S. Burlington Ave., Los Angeles 57; Belilove Co., 420 Market St., San Francisco 11; E. & M. Equipment Co., 2415 15th St., Denver; J. C. McDougall Co., 520 First Ave., South, Seattle 4.

**FERROD MFG. CO.**—(See Tuttle & Kift, Inc.)

**FISHER CONTROLS**, Santa Monica, Calif.—Calrepco, 1417 Georgia St., Los Angeles.

**FISHER-PIERCE CO., INC., 170 Pearl St., South Braintree, Mass.—Oscar Hogenson, 95 Connecticut St., Seattle; J. A. Tudor Associates, 1004 S.E. Belmont, Portland; Allen I. Williams, 2263 South Albion St., Denver, and 3221 Silver Ave., S. E., Albuquerque; Maydwell & Hartzell, Inc., 870 Tennessee St., San Francisco, 427 W. 5th St., Los Angeles, and 324 S. Second St., Phoenix. (See ad, p. 27)**

**FISCHER & PORTER CO.**, 51 Warminster Road, Hatboro, Pa.—Sold thru Branch Offices of Sanga Electric Co.

**FLETCHER MFG. CO.**, 302 E. 2nd St., Dayton, Ohio —Through electrical wholesale jobbers. Graybar Electric Co., Westinghouse Electric Supply, General Electric Supply, Mine & Smelter and Coast Wholesale. Wholesalers, all principal cities.

**FLEXAUST CO.**, 100 Park Ave., New York City 17—Smallcomb Electric Co., 1120 S. Main St., Los Angeles 15; Republic Supply Co., 1919 Williams St., San Leandro, Calif.; Washington Belting and Rubber Co., 672 E. 11th St., Tacoma; Southwest Supply Co., 510 8th Ave., San Diego; Robert S. Wilson, 737 34th St., Richmond, Calif.

**FLEXIBLE MOLDED HEATER DIV.**, Edwin L. Wiegand Co., 7500 Thomas Blvd., Pittsburgh, Pa. — Montgomery Brothers, 1122 Howard St., San Francisco; 1053 South Olive, Los Angeles; 911 Western Ave., Seattle, and 1632 N. W. Johnson, Portland.

**FLEXO WIRE** (Div. of Copperweld Steel Co.), 70 W. First St., Oswego, N. Y.—Jordan Brookes Co., 6601 Telegraph Rd., Los Angeles 22, and 571 Howard St., San Francisco.

**FLUOR PRODUCTS COMPANY**, 12000 E. Washington Blvd., Whittier, Calif., P. O. Box 1267, Santa Rosa, Calif.

**FLUORESCENT FIXTURES OF CALIFORNIA** (See All-Brite Lighting Division)

**FLOY TAG & MFG. CO.**, 2909 Blakly, Seattle, Wash. —Artwel Electric, Inc., 1485 Bayshore, San Francisco.

**FLYNN MFG. CO.**, Michael, Tabor Road & Godfrey Ave., Philadelphia, Pa.—Branch: 672 S. Lafayette Park Place, Los Angeles; 1441 Fremont St., Stockton, Calif.

**FOOTE BROS. GEAR & MACHINE CORP.**, 4545 S. Western, Chicago 9, Ill.—Branch: 3529 Firestone Blvd., South Gate, Calif. Hamilton Associates, 1236 Elati St., Denver; Power Transmission Products, 1107 N. W. 14th Ave., Portland; National Equipment Co., 101 W. 2nd St. S., Salt Lake City; Charles A. Fowler, 979 Bryant St., San Francisco; Carlsbad Supply Co., 301 Park Drive, Carlsbad, N. M.; Union Supply Co., Casper, Wyo., Cripplecreek, Colo., and Denver; Edward D. Maltby Co., 2041 W. Anaheim Rd., Long Beach, 4035 E. 52nd St., Maywood, Calif., 120 S. 4th St., Phoenix, and 745 15th St., San Diego; Stockton Iron Works, Stockton Calif.; Sprockets, Inc., 3628 E. Marginal Way, Seattle, and 31 N. W. 1st Ave., Portland.

**FORDHAM MFG. CO.**, 2220 Pearsall Ave., New York City 67—James C. Pope, Jr., 2720 So. San Pedro St., Los Angeles.

**FOREST CITY BIT & TOOL CO.**, 9th Ave. N.W., Hickory, N. C.—E. M. Spence, 2720 San Pedro, Los Angeles 11.

**FOREST ELECTRIC CO.**, 7220 Circle Ave., Forest Park, Ill.—Carl M. Segal Co., 14942 Aztec St., San Fernando, Calif.

**FORMICA CO.**, 4614 Spring Grove Ave., Cincinnati 32, Ohio—Glenn H. Taylor, 2300 South Eastern Ave., Los Angeles 22; Harry L. Richards, 907 Post St., San Francisco 9; H. B. Beswick, Civic Service Center 550 Mercer St., Seattle 9; R. N. Power, 3030 N. W. 29th Ave., Portland; R. C. Hockaday, 1052 Rosecrans St., San Diego; Robert K. Hudson, 1445 Kearney St., Denver.

**FOSTER WHEELER CORP.**, 165 Broadway, New York City 6—Branch Offices: 461 Market St., San Francisco; 714 W. Olympic Blvd., Los Angeles, 808 106th N.E., Bellevue, Wash.

**FOUCH ELECTRIC MFG. CO.**, P. O. Box 3978, Portland, Ore.—Graybar Electric Co., Portland, Eugene, Ore., Seattle and Spokane; North Coast Electric Co., Portland and Seattle; Westinghouse Electric Supply Co. Portland and Yakima, Wash.,; Platt Electric Supply Co., Portland; Eoff Electric Co., Portland, Salem, and Eugene, Ore.; General Electric Supply Co., Portland, Medford; Columbia Elec. Supply, Spokane and Pasco; Kitchen Electric Supply, Reno, Nev.

**FWD CORPORATION**, Clintonville, Wis.—Branches, District Supervisors: W. R. Lewis, 405 165th Ave. S.E., Bellevue, Wash., Jack Kelly, 1864 Westwood Pl., Pomona, Calif.; Ronald Gehrke, 837 Hawthorne Way, Millbrae, Calif. Authorized Sales and Service: Arizona Cedar Rapids Co., 1802-10 W. Jackson, Phoenix; Calavar Corp., 2700 S. Broadway, Los Angeles; The FWD Pacific Co., 850 Harrison St., San Francisco 7; MacDonald Equipment Co., 5300 Colorado Blvd., Denver 16; Steffeck Equipment Co., 1825 N. Main St., Helena; Feenaughty Machinery Co., 112 S.E. Belmont St., Portland 14; Kimball Equipment Co., 1846 S. 2nd West, Salt Lake City; Feenaughty Machinery Co., 1028 6th Ave., South, Seattle 4; Feenaughty Machinery Co., N. 715 Division St., Spokane; Leonard Motor Co. Inc., 2601 Second N.W., Albuquerque, N. M.

**FOXBORO CO.**, 38 Neponset Ave., Foxboro, Mass.—Branches at 399 Preda St., San Leandro, Calif. 1212 S. Garfield, Alhambra, Calif., 165 S. 1st West St., Salt Lake City, 320 S. W. Stark St., Portland 4, 1411 Fourth Ave., Seattle 1, 2829 E. 2nd Ave., Denver 6; and 1201 Burgess Dr., El Paso Tex.

**FRANKEL CONNECTOR CO.**, 27 Vestry, New York City—Rutkin Electric Sales Co., 744 Kohler St., Los Angeles; Magnes Co., Inc., 44 Berry St., San Francisco.

**FRESH'nd-AIRE COMPANY**, 3200 W. Peterson Chicago, Ill.—H. L. Norton, Territory Mgr., 201 Magellan Rd., Arcadia, Calif.; T. A. Payton, Territory Mgr., 882 La Para Ave., Palo Alto; A. H. Huot, Territory Mgr., 3222 McGilvia Blvd., Seattle; Floyd Yudelson, 3142 Wilshire Blvd., Los Angeles 5.

**FRICK-GALLAGHER MFG. CO.**, Wellston, Ohio — Branch: 1803 E. 14th St., Oakland 6, Calif.

**FRIGIDAIRE DIV.**, General Motors Corp., 300 Taylor St., Dayton 1, Ohio — Branch Offices: Frigidaire Sales Corp., Wm. F. Cronin, Branch Mgr., 1250 53rd St., Oakland 8; S. H. Zoellner, Branch Mgr. 3251 Leonis Blvd., Los Angeles 58, Mgr., 215 Wazee Market, Denver 4; and P. W. Guthrie Branch Mgr., W. G. Walz Co., 500 San Francisco St., El Paso, Tex.; W. H. Baldwin, Branch Mgr 1035 N.W. 14th Ave., Portland 9; W. H. Bintz Co. 433 W. Third South St., Salt Lake City 11; Sunset Electric Co., 703 Division St., Spokane 1.

**FRINK CORPORATION, THE**, Bridge Plaza North Long Island City, N. Y.—James Mundstock, 417 Market St. San Francisco; Barney H. Hartley, 708 Willette West, Phoenix.

**FRISBIE CO., H. C.**, 1120 E. Pico Blvd., Los Angeles 21, Calif.—Fred J. Stone, 24 Manzanita Ave., San Francisco; R. C. English, 4229 122nd Ave. S.E. Bellevue, Wash.; Ray Alexander, 940 S. Stout St. Blackfoot, Ida.

**FULLERTON MFG. CO.**, Div. Franklin Research, Willard Rd., Norwalk, Conn.—Fred Gleason 657 E 45th, Seattle; Harry F. Ream Sales Agency, 1210 Santa Fe Dr., Denver 4; Ernest F. Hauch, 1282 Folsom St., San Francisco; J. G. Pomeroy Co., 1004 East 4th, Los Angeles; Keith Lagerstrom, E. 122 E. 8250 St., Sandy, Utah.

**FULLMAN MFG. CO., 1209-1215 Jefferson St., Latrobe, Pa.—L. F. Church Co., 750 Natoma St., San Francisco; Payne & Sloane, Inc., 1101 E. 5th St. Los Angeles; Harvey M. Olmstead, Box 5512 Terminal Annex, Denver; R. C. English & Associates, 4229 122nd St., S.E. Bellevue, Wash.; Wiant Products Co., 1231 N.W. Hoyt St., Portland 9. (See ad, p. 31)**

**FURNAS ELECTRIC CO.**, 1000 McKee St., Batavia, Ill Calhoun & Paxon Co., 5459 Alhambra Ave., Los Angeles 32; Muth-Richards Co., 1804 Bush Place Seattle; Donal Co., P. O. Box 7013, Portland; John F. Cady Co., 1485 Bayshore, San Francisco; J. Henry Jones Co., 120 Apricot Ave., Salt Lake City 16; South West Sales Co., 1620 Sast Earll Dr. Phoenix; Clyde P. Elliott Co., 661 Delaware St Denver 4.

**FUSE INDICATOR CORP.**, 99 Chauncy St., Boston Mass.—Guy Whitaker Co., 2952 Crenshaw Blvd Los Angeles.

**G.C.A. MFG. CO.**, 346 Wahconah, Pittsfield, Mass.—Sold through General Electric Supply Corp., Westinghouse Supply Corp., Graybar Electric Co., Inc. Line Material Co., Joslyn Pacific Co., in all principal cities.

**G & W ELECTRIC SPECIALTY CO., 3500 W. 127th St., Blue Island, Ill.—W. R. Hendrey Co., Smith Tower Bldg., Seattle; C. E. Ingalls & Sons, Monadnock Bldg., San Francisco; R. E. Cunningham & Son, 530 W. 6th St., Los Angeles; Riter Eng. Co., P. O. Box 2187, Salt Lake City; F. W. Gorman, 1701 Texas St., El Paso, and c/o John Ridenbaugh, P. O. Box 743, Albuquerque; H. C. Guire, 715 S York St., Denver. (See ad, p. 29)**

**GAI-TRONICS CORP.**, 607 Washington St., Redding Pa.—C. E. Ingalls & Sons, Monadnock Bldg., San Francisco.

**GAMEWELL CO., THE**, 2638 Chestnut St., Newton Upper Falls, Mass.—Lee Grant Snyder Co., 1418 No. Highland Ave., Hollywood, Calif.; Myron Smith & Co., 9300 N.W. 12th St., Bellevue, Wash.; Spicer Lindsay Assoc., 4960 E. Evans Ave., Denver

**GARDEN CITY PLATING & MFG. CO.**, 1750 N. Ashland Ave., Chicago Ill.—Branch Offices: Garco Western Corp., 3912 Broadway, Los Angeles 37 and 49 Stevenson St., San Francisco 5; Bruce Emmet Corp., 830 S. E. Alder St., Portland 4.

**GATE CITY STEEL, INC.**, 4000 Warm Springs Ave. Boise, Idaho—Ted R. Kent, S. 1417 Jefferson, Spokane; Robert Card, Box 487, LaGrande, Ore.; Darwin Patterson, 379 W. Filer, Twin Falls, Idaho W. F. Huish, Box 753, Idaho Falls, Idaho.

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**GEDNEY ELECTRIC CO., Rockefeller Center, New York City 20—W. S. Sanderlin Co., 129 1st Ave West, Seattle 99, and 201 S. E. Washington St. Portland; Rutkin Elec. Sales Co., 744 Kohler St. Los Angeles 21; George Darger Co., 521 Rio Grande St., Salt Lake City; The Baxter Co., 101 Kansas St., San Francisco. (See ads, pp. 31, 45 58, 83, 85, 96)**

**GEM ELECTRIC MFG. CO., INC.,** 237 37th St. Brooklyn, N. Y.—George Kraft Co., 1501 N. W Kearny, Portland; Guy deLeuze, 1923 Bryant St. San Francisco; Kobert & Co., Inc., 329 Winston St., Los Angeles 13.

**GEMS COMPANY, INC.,** Sheppard Lane, Farmington Conn.,—Technical Sales Co., 1731 First Ave. South Seattle; Carkeek Eng. Co., 285 S. Euclid Ave Pasadena, Calif.; Imco Equip. Co., 1980 Mt. Blvd Oakland 11.

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**GENERAL AIR CONDITIONING CO.,** 4542 E. Dunham St., Los Angeles, Calif.—Branch Office: 1355 Market St., San Francisco, and 170 Denny Way Seattle. J. E. Edstrom, 1224 S. W. Morrison, Portland.

**GENERAL CABLE CORP., 730 Third Ave., New York City—Branch Offices: R. O. Barnes, Pac. Dist. Mgr., and J. J. O'Reilly, Mgr., 185 Industrial St., San Francisco 24; J. E. Moore, Dist. Mgr., 2906 Leonis Blvd., Los Angeles 58; R. E. Roberts, Branch Mgr., 1137 W. Hanford St., Seattle; D. G. Sutton, Branch Mgr., 3316 E. Washington St., Phoenix; O. Hicks, 520 E. St., San Diego; C. W. Barnes, 2215 N.W. Quimby St., Portland 10; J. E. Smith, 22 Jeremy St., Salt Lake City 4; D. H. Buckley, 915 Fee Drive N. Sacramento; G. W. Paulsen, 2100 Zearing, N.W Albuquerque; N. E. Mains, 4201 E. 48th Ave. Denver 16; C. B. Deeds, 742 Ala Moana Blvd. Honolulu, Hawaii. Representatives and Branch Office Managers: E. J. Benis, R. P. Carrick, 6221 Hollis St., Emeryville 8, Calif.; R. Earlywine, 1321 North E St., San Bernardino, Calif.; W. R. Mays 173 West San Fernando St., San Jose 13; C. R Biggs, 1230 4th St., Santa Monica, Calif.**

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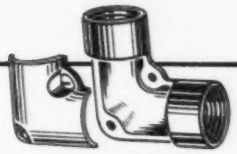
**GENERAL ELECTRIC COMPANY, General Offices Schenectady, N. Y.—C. C. Walker, Regional Vice President, Headquarters, 235 Montgomery St., San Francisco; Public Relations Services Division, 235 Montgomery St., San Francisco, R. W. Jackson, Manager, West Coast Region; Engineering Recruiting Services, 235 Montgomery St., San Francisco. J. B. Holmes.**

FLIGHT PROPULSION DIVISION: Headquarters, Cincinnati, Ohio — E. E. Doorly, Manager, CAPSO Flight Propulsion Laboratory Dept., P. O. Box 336 Danville, Calif.; Robert Dewing, 1240 7th Ave. San Diego, Calif.



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ELECTRONIC COMPONENTS DIVISION: Headquarters, Owensboro, Ky., A. H. Ryan, Mgr., **Microwave Laboratory**, 601 California Ave., Palo Alto; **Semi-Conductor Products Dept.**: Ward Gebhardt, Dist. Sales Mgr., 11840 West Olympic Blvd., Los Angeles; R. W. Olsen, Dist. Sales Mgr., 442 Peninsular Ave., San Mateo; B. S. Angwin, Reg. Mgr., **Equipment Tube Sales**, 11840 W. Olympic Blvd., Los Angeles; A. H. Phillips, Dist. Sales Mgr., **Power Tube Sales**, 11840 W. Olympic Blvd., Los Angeles; R. E. Giannini, Reg. Mgr., **Replacement Tube Sales**, 11840 W. Olympic Blvd., Los Angeles; T. C. Anderson, Dist. Mgr., **Replacement Tube Sales**, 442 Peninsular Ave., San Mateo, Calif.; T. A. Reese, Dist. Mgr., **Replacement Tube Sales**, 220 Dawson St., Seattle, Wash.

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TRANSFORMER DIVISION: Headquarters, Pittsfield, Mass.—**Distribution Transformer** Dept., D. W. Lynch, Mgr., Oakland Transformer Plant, 5441 E. 14th St., Oakland; **Insulator Dept.**, Headquarters, Baltimore, Md.—T. E. Traugott, Regional Mgr., 1229 Burlingame Ave., Burlingame.

**GENERAL FIRE EXTINGUISHER CO.**, 8740 Washington Blvd., Culver City, Calif.—Branch Offices: 127 10th St., San Francisco 3; 416 Bell St., Seattle 1; 6648 Vigo Dr., San Diego 3; 1220 S. W. Stark, Portland.

**GENERAL INDUSTRIES CO.**, Olive & Taylor Sts., Elyria, Ohio — James J. Backer Co., 221 West Galer St., Seattle 99; W. Bert Knight Co., 13037 W. Pico Blvd., Los Angeles 64; Gordon G. Moss, P. O. Box 428, Greeley, Colo.; Moulthrop & Hunter, 165 11th St., San Francisco 3.

**GENERAL INSTRUMENT CORP.**, 65 Governeur St., Newark, N. J.—Logan & Stone, 1485 Bayshore Blvd., San Francisco; James J. Backer Co., 221 W. Galer St., Seattle; M. Mann Associates, 14751 Keswick St., Van Nuys, Calif.

**GENERAL INSULATED WIRE WORKS, INC.**, Div. General Cable Corp., 69 Gordon Ave., Providence, R. I.— Branch Offices: 185 Industrial St., San Francisco; 2906 Leonis Blvd., Los Angeles 58; 915 Fee Dr., No. Sacramento 15; 520 E. St., Room 811, San Diego; 2215 N. W. Quimby, Portland 10; 1137 W. Hanford St., Seattle 4; John Tubergen, 2232 W. 11th St., Los Angeles.

**GENERAL LIGHTING CO.**, Brooklyn, N. Y. — James Mundstock, 417 Market St., San Francisco.

**GENERAL RADIO COMPANY**, West Concord, Mass. —General Radio Co., 1000 No. Seward St., Los Angeles 38, Calif.; 1186 Los Altos Ave., Los Altos, Calif.

**GENERAL SWITCH CORP.**, 45 Roebling St., Brooklyn, N. Y.—Keeler, White Co., in following cities: 322 N. W. 4th St., Portland; 1041 6th Ave. So., Seattle 4; 615 7th St., San Francisco 3; Payne & Sloan Co., 1101 E. 5th St., Los Angeles.

**GENERAL TRANSFORMER CO.**, 18240 Harwood Ave., Homewood, Ill. — Marshank Sales, 7422 Melrose, Los Angeles; Win W. Thompkins Co., 2636 Birch St., Palo Alto, Calif.

**GEORGE CO., P. D.**, 5200 N. Second St., St. Louis 7, Mo.—Insulation and Wires, Inc., 6415 E. Fleet St., Los Angeles 22; 255 Loomis St., San Francisco; 1112 N. W. 19th Ave., Portland.

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**GERINGER & SONS MFG. CORP.**, Peekskill, N. Y.—Neil Winikoff, 2700 Beacon Ave., Seattle; Merwin R. Altfield, 3038 Overland Ave., Los Angeles 24; M. A. Wagner, 1075 Broadway, Belmont, Calif.; Kenneth B. Schumann, 1073 Galapago, Denver.

**GIBSON ELECTRIC CO.**, Box 593, Delmont, Pa. — E. A. Wilcox Co., 173 Utah Ave., So. San Francisco; 6436 E. Corvette St., Los Angeles; 915 Arctic Bldg., Seattle.

**GIBSON MFG. CO.**, 1919 Piedmont Circle N. E., Atlanta, Ga.—L. D. Black, 2200 Ocean View Ave., Los Angeles; John Thompson, 4242 No. 15th Dr., Phoenix; Neil Winikoff, 7554 44th St. N. E., Seattle; J. W. Coffman, 735 Bank of America Bldg., San Diego 1. Distributor: Calif. Wholesale Elec. Co., 2548 Yates Ave., Los Angeles 22.

**GILL GLASS AND FIXTURE CO.**, Amber and Tioga Sts., Philadelphia, Pa.—Branch Office: 861 Market St., San Francisco.

**GLASTIC CORP.**, 4321 Glenridge, Cleveland 21, Ohio—Insulation and Wires, Inc. in following cities: 6415 East Fleet St., Los Angeles 22; 450 Alabama St., San Francisco 10 and 525 North Tillamook, Portland 12.

**GLEASON REEL CORP.**, Mayville, Wis.—Donald T. Elliott, 1229 Burlingame Ave., Burlingame, Calif.

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**HOLAN CORP.**, 4100 W. 150th St., Cleveland, Ohio—Branch Office: 3605 W. Clarendon St., Phoenix; 932 Subway Terminal Bldg., Los Angeles.

**HOLFAST RUBBER CO.**—(See Dayton Rubber Co.)

**HOLLINGSWORTH & VOSE CO.**, 112 Washington St., East Walpole, Mass.—Tri State Supply Corp., 544 South San Pedro St., Los Angeles; 554 Bryant St., San Francisco 7; Dougherty Enterprises, 149 Kaimi St., Kailua, Hawaii.

**HOLOPHANE CO., INC., 342 Madison Ave., New York City 17—Robert G. Dummel, 115 New Montgomery St., San Francisco 5, Calif.; J. J. McCullough, 26491 Tyrrell Ave., Hayward, Calif.; Paul Davis, 2741 Marine Drive, Bremerton, Wash.; J. G. Platt, 3216 Oakshire Drive, Los Angeles 28, Calif.; F. Sliney, 617 Ocean Ave., Santa Monica, Calif.; H. E. Gypson, 6262 Crestview Ave., Littleton, Colo. Distributing Outlets: General Electric Supply Co., Westinghouse Electric Supply Co., Graybar Electric Co., in all principal cities, California Elec. Sup. Co., San Francisco, Calif.; The Central Elec. Supply Co., Denver, Colo.; Columbia Elec. & Mfg. Co., Spokane, Wash.; Eoff Elec. Supply Co., Portland, Ore.; Love Electric Co., Tacoma, Wash.; North Coast Elec. Co., Seattle, Wash.; Stewart Elec. Supply Co., Bakersfield, Calif.; State Elec. Supply Co., Albuquerque, N. M.**

**HOLUB INDUSTRIES, INC.**, Sycamore, Ill.—F. M. Nicholas Co., 714 Harrison St., San Francisco; Bruce-Emmett Co., 830 S. E. Alder, Portland, and 1016 First Ave., Seattle; E. T. Vonier, 1160 Elati St., Denver; John M. Fincke Co., 1848 N. Main St., Los Angeles; Darger Co., 211 S. 2nd West St., Salt Lake City.

**HOMELITE DIV., TEXTRON, INC.**, Riverdale Ave., Port Chester, N. Y.—Branch Offices: 3000 W. Valley Blvd., Alhambra, Calif.; 727 Airport Blvd., South San Francisco; 2308 Ventura St., Fresno; 2234 Auburn Blvd., Sacramento; 1911 22nd Ave. S., Seattle; East 3927 Trent Ave., Spokane; 3463 S. E. Milwaukie Ave., Portland; 7440 Highway 91, North Salt Lake City; 1040 10th St., Denver.

**HOPAX ELECTRIC, INC.**, 547 Greenwich St., New York City—H. G. Rising, Inc., 151 N. Vermont Ave., Los Angeles.

**HOPE ELEC'L PRODUCTS CO., 57 Long Ave., Hillside, N. J.—R. C. English & Associates, Builders Exchange Bldg., Portland, and 4229 122nd St. S. E., Bellevue, Wash.; Walter Wallace Co., 435 Bryant St., San Francisco 7; Robert M. Schow, 1709 West 8th St., Los Angeles 17; L. D. Hood Sales Agency, 87 S. Kalamath St., Denver; Marshall R. Elmore & Co., 1011 Richard St., Carlsbad, N. M. (See ad, p. 36)**

**HOPE WEBBING CO.**, Providence 1, R. I.—C. D. LaMoiee, 2433 Birkdale, Los Angeles; 2221 4th, Berkeley; 317 N. W. Broadway, Portland; 166 Jackson St., Seattle.

**HOPFIELD INDUSTRIAL MFG. CO.**, 738 A Street, San Rafael, Calif. Sold direct.

**HOSKINS MFG. CO.**, 4445 Lawton, Detroit, Mich.—E. A. Wilcox Co., 173 Utah Ave., So. San Francisco, and 6436 E. Corvette St., Los Angeles 22. Western Factors, 2743 4th Ave., Seattle 4.

**HOUGHTON & CO., E. F.**, 1500 Davidson St., San Francisco, Calif.—Branch Offices: 90 Dearborn St., Seattle; 400 Concord Bldg., Portland, and 2445 E. 26th St., Los Angeles 28.

**HOUSE-O-LITE CORP.**, 2430 So. Ashland Ave., Chicago, Ill.—Anderson-O'Donnell, 680 Delaware, Denver; Pete Bach Electric Co., 1233 N.W. 12th Ave., Portland; Charles B. Gratiot Co., 1285 Folsom St., San Francisco; Highland Sales, 1215 Fitt St., Albuquerque, N. M.; Lyle Heston, 3508 88th Ave. S.E., Medina, Wn.

**HOWARDUCT DIV., NAT'L SUPPLY CO.**, Melrose Park, Ill.—(See Tubular Div. Nat'l. Supply Co.)

**HOWELL ELECTRIC MOTORS CO.**, 409 N. Roosevelt Ave., Howell, Mich.—Campbell-Elsey & Co., 1945 S. 11th St., E., Salt Lake City; John Hyatt Co., 6059½ E. Olympic Blvd., Los Angeles 22; Glen Reece Co., 2001 W. Alameda Ave., Denver 13.

**HOWZE & CO., W. D.**, 5603 N. Figueroa St., Los Angeles, Calif.

**HOYT ELECTRICAL INSTRUMENT WORKS** (Burton Rogers Co.), Sales Division, 42 Carlton St., Cambridge, Mass.—H. A. Shoemaker, 1127 Wilshire Blvd., Los Angeles; R. E. Ryberg, 2612 W. Armour, Seattle; James H. Dolliver, 1750 Oneida St., Denver 7.

**HUB ELECTRIC MFG. CO.**, 523 Medford, Charlestown, Mass.—A. J. Nelson Co., P. O. Box 5502, Denver 17; C. R. Rice & Son, 6105 Mitchell, S.E., Albuquerque; Pete Bach Electric, 1233 N.W. 12th Ave., Portland; Jack Payne Co., 1101 E. Fifth St., Los Angeles; M-C International Co., 717 Market St., San Francisco.

**HUBBARD AND COMPANY, 200 South Michigan Ave., Chicago 4, Ill.; 1250 45th St., Emeryville 8, Calif.—West Coast Factory, Warehouse and Office: R. M. Waggoner, Vice President, West Coast, 1250 45th St., Emeryville 8, Calif.; N. V. Arntzen, Dist. Sales Mgr., 416 W. 8th St., Los Angeles 14, Calif. (covers Southern California; Arizona; Clark County, Nevada); H. R. Edward, Jr., Dist. Sales Mgr., 1250 45th St., Emeryville 8, Calif. (covers Northern California; Western Nevada); A. C. Mowery, Dist. Sales Mgr., 271 S.W. Glenmorrie Rd., Oswego, Ore. (covers Oregon; Washington, and Alaska); L. T. Owen, Dist. Sales Mgr., 2759 South 20th East Street, Salt Lake City 5, Utah (covers Idaho; Utah; Eastern Nevada; Montana; Western Wyoming). Distributors: General Electric Supply Company, Graybar Electric Company, all principal cities; Mine and Smelter Supply Company, Salt Lake City, Utah, Denver, Colo.; Honolulu Electrical Products Company, Ltd., Honolulu, Hawaii.**

**HARVEY HUBBELL, INC., State St. and Bostwick Ave., Bridgeport, Conn.—(Products sold through authorized electrical distributors.) Branch Offices: Graver A. Andersen, 1675 Hudson Ave., San Francisco 24; Berger Benson, Jr., 5025 "J" Parkway, Sacramento; Robert T. Flynn, 985 Via Honda, San Lorenzo; Rolan L. Settles, 254 Lassen Ave., Mt. View; A. M. McMillan, 103 No. Santa Fe Ave., Los Angeles 12; Walter C. Haffner, 3773 Willowcrest Ave., No. Hollywood; Stuart E. Pentz, 5615 Valley Glen Way, Los Angeles 43; Arthur B. Wells, 4904 Casa Drive, Tarzana; James I. Jeffers, 761 Blackthorn St., El Cajon (near San Diego); Paul A. Douden, 1645 Wazee St., Denver 2; Frank A. Strohecker, 218 Eyres Bldg., Seattle; D. J. Morris, 218 Eyres Bldg., Seattle; Harvey Hubbell, Jr., 307 Hyde Bldg., Spokane; Elmer Johnston, 307 Hyde Bldg., Spokane; Frank M. Strohecker, 218 Eyres Bldg., Seattle; David King, 202 Regal Bldg., Portland, Ore. (See ad, p. 35)**

**HUBBELL CORP.**, Hawley Road, Mundelein, Ill.—C & S Equip. Co., 2103 S. San Pedro St., Los Angeles; H. W. Baker Co., 288 7th St., San Francisco; A. E. Edwards Co., 1108 Willard Ave., Seattle 99; McCartney-Denver Co., 1660 11th St., Denver 4.

**HUENEFELD CO.**, 2701 Spring Grove Ave., Cincinnati 25, Ohio—Pacific Electric Sales, 140 S. E. 28th, Portland.

**HUGHES BROTHERS**, Seward, Neb.—Maydwell & Hartzell, Inc., 870 Tennessee St., San Francisco; 427 W. 5th St., Los Angeles 13; 2318 N. W. Vaughn, Portland; 121 S. Monroe, Spokane; 306 Dexter Ave., Seattle 4; 324 S. Second Ave., Phoenix.

**HUGHEY & PHILLIPS, INC., 3200 N. San Fernando Blvd., Burbank, Calif.—Direct from factory.**

**HULLHORST TOOLS, INC.**, 1915 Nebraska Ave., Toledo, Ohio—Richardson Electric Co., 166 Jackson St., Seattle; J. R. Christensen, 247 E. 5th S. St., Salt Lake City; Electrical Specialty Co., 2026 Arapahoe, Denver.

Illustration, above, shows size relationship of a Hubbell 4-wire, 50 amp. "Twist-Lock" cap and a midget 2-wire, 10 amp. "Twist-Lock" cap . . . a good indication of the wide range of sizes and ratings available.

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"Twist-Lock", *first and still the finest locking connector made,* is designed for portable electrical equipment requiring constant contact pressure and safe, secure locking protection and convenience. It is ruggedly constructed to withstand abuse and provide long life service. "Twist-Lock" offers many wiring features which simplify installation and eliminate costly service call-backs.

### 8 DIFFERENT LINES

"Twist-Lock" represents the safest and most complete quality line of locking connectors ever developed. Caps, connector bodies, motor bases and receptacles are available in the eight different types and sizes shown at right, and in ratings to conform to your electrical specifications.

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**REGULAR Twist-Lock**

Rugged construction. Regular wiring. Wide range of types and ratings.

**SUPER Twist-Lock**

Screwless terminals and dead front for faster, safer wiring.

**MIDGET Twist-Lock**

The same high quality in midget size. Many O.E.M. uses. Wide selection of types and ratings.

**GROUNDING Twist-Lock**

For 125 v. grounding only. Non-interchangeable with regular "Twist-Lock".

**"INSULPRENE" Twist-Lock**

Tough neoprene compound resists steam, hot water, grease, acids, etc.

**30 AMP. SUPER Twist-Lock**

Non-interchangeable with 20 amp. units. Prevents interchange between 20 and 30 amp. service. Screwless terminals and dead front.

**50 AMPERE Twist-Lock**

In 600 v. A.C. and 250 v. D.C. Solderless connections. Metal cord grips.

**277 VOLT Twist-Lock**

Non-interchangeable with other "Twist-Lock" or any other device made. Used for fluorescent lighting.

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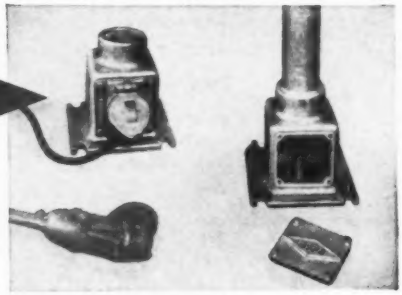
METAL-PIPE POLE BASES



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Four base sizes permit simple fabrication of poles for a limitless variety of small and large fixture loads at varying elevations.

**PROVED IN USE**—Attractive installations for lighting parking areas, gas stations, railway platforms, sub-stations, industrial plants and shipping areas, sewage disposal works, pumping stations, schools, churches, hospitals, motels, marinas, resorts. Also as supports for signs and signals. Plain gasketed or 3 pole receptacle cover.

2" — H42200
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**HOPE ELECTRICAL PRODUCTS CO.**
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**HUNTER DIVISION, ROBBINS & MYERS, INC.**, 2500 Frisco Ave., Memphis, Tenn.—George F. Sleight, Western Area Sales Mgr., 7755 Paramount Place, Pico Rivera, Calif.; W. O. Proby & Assoc., 1308 N.W. Everett, Portland 9 and 2915 13th Ave., S.W., Seattle 4; John Allen Ware and Assoc., 717 W. Buchanan St., Phoenix; W. G. Cline, 4500 Kalamath, Denver; Edward L. Peterson, 709 Bank of America Bldg., San Diego; Fred E. Reck, 126 25th Ave., San Mateo.

**HUSKY PRODUCTS, INC.**, 5300 Vine St., Cincinnati 17, Ohio—Available through leading Cable Manufacturers. Available thru Gen. Elec. Co., Materials Constr. Div., principal cities.

**HYKON MFG. CO.**, 163 E. State St., Alliance, Ohio—Fred D. Benz Co., 520 4th St., San Francisco; J. G. Pomeroy Co., 1004 E. Fourth, Los Angeles; R. Johnston, 1011 E. 69th, Seattle.

**HYNES ELECTRIC HEATING DIV.**, Turbine Equip. Co., Sheffield St., Mountainside, N. J.—Contractors Equip. & Supply Co., 707 Broadway, N. E., Albuquerque; De Laval Pacific Co., 201 E. Millbrae Ave., Millbrae, Calif.; Heat Engineering & Sup. Co., 213 E. Valley Blvd., San Gabriel, Calif.; Landes, Zachary & Peterson, 275 Kalamath St., Denver; Western Const. Equip. Co. Great Falls and Billings, Mont.

**IDAHO POLE CO.**, Sandpoint, Ida.—Branch Office: Bozeman, Mont.

**IDEAL ELECTRIC & MFG. CO.**, First and Oak Sts., Mansfield, Ohio—Central Station Equip. Co., 2323 Aviation Highway, Tucson; Lombard Smith Co., 714 W. Olympic Blvd., Los Angeles; Artwel Electric, Inc., 1485 Bayshore Blvd., San Francisco; T. D. McGarry, 604 Utah Ave., Butte; Frank G. Perri, 935 Northwest 12th Ave., Portland 9; Nickerson Pump & Mach. Co. Inc., 158 W. 4th South, Salt Lake City; Fred W. Carlson, 1201 Dexter Ave., Seattle 9; Hill Elec. Co., Inc., 580 Mateo St., Los Angeles 13; W. Hill Electrical Service, 680 Imperial St., Los Angeles 2.

**IDEAL INDUSTRIES, INC.**, Park Ave., Sycamore, Ill.—Products available from electrical distributors: C. D. Belt & Co., 2149 So. Clarmont, Denver; L. M. Slusser, 318 Dooly Block, Salt Lake City, Utah; Northwestern Agencies Inc., 4130 First Ave. S., Seattle, and 2941 N. W. Quimby, Portland; John H. Maddox Co., 420 Market St., San Francisco; Maddox Sales Co., 914 E. 3rd St., Los Angeles.

**IDEAS, INC.—CMG INDUSTRIES**, 214 Ivinson, Laramie, Wyo.—Arthur & Allen, 420 Market St., San Francisco; Krause Engineering, 741 E. Artesia, Long Beach, Calif.; Shaffer & Nelson, 312 Occidental Ave., Seattle, 139 S. E. Taylor St., Portland 14; P. O. Box 198, Spokane 10, and 212 Beason Bldg., Salt Lake City; Clinton F. Levings, 10024 Oak Lane S. W., Tacoma 9, Wash.

**ILG ELECTRIC VENTILATING CO.**, 2850 N. Pulaski Rd., Chicago 41, Ill.—Branch Offices: 1709 W. 8th St., Los Angeles; 55 New Montgomery, San Francisco; 7331 W. Greenlake Way, Seattle; 914 W. Madison St., Phoenix; 1216 Santa Fe Dr., Denver 4; 1482 Major St., Salt Lake City; 10338 N. E. Sandy Blvd., Portland; 305 Canal St., El Paso; Lefler Eng. Sales, 108 N. 23rd, Billings, Mont.; R. E. Tweedy, 914 W. Madison, Phoenix.

**ILLINOIS EDISON PORCELAIN DIV.**, McGraw-Edison Co., Pearl St., Macomb, Ill.—(For special porcelain only) Thomas W. Fyles, 353 S. Curson Ave., Los Angeles—Check Line Material Industries for listing on Standard Line.

**ILSCO CORP.**, 4730 Madison Road, Cincinnati, Ohio—Maddox Sales Co., 914 E. 3rd St., Los Angeles 13; John Maddox Co., 420 Market St., San Francisco 11.

**IMPERIAL LIGHTING CO.**, Latrobe, Pa.—L. D. Wilson, P. O. Box 726, Glendora, Calif.; Kenneth B. Schumann Co., 1073 Galapago, Denver; P & G Associates, 11050 S. E. 30th, Seattle.

**INDIANA STEEL WIRE CO., 700 S. Council, Muncie, Ind.—Graybar Electric Co., Inc., in all principal cities. (See ad, p. 37)**

**INDUSTRIAL DEVICES, INC.**, Edgewater, N. J.—Manufacturing Associates, 1416 Westwood Blvd., Los Angeles and P. O. Box 601, Cupertino, Calif.

**INDUSTRIAL ELECTRICAL WORKS**, 1509 Chicago St., Omaha, Neb.—Crane Veyor Corp., 1240 S. Boyle Ave., Los Angeles; Rundel Elec. Co., 230 Adrian Rd., Millbrae, Calif.; State Elec. Supply Co., Box 133, Albuquerque, N. M.—Star Machinery Co., 241 Lander St., Seattle.

**INDUSTRIAL ENGINEERING & EQUIPMENT CO.**, 24 Hanley Industrial Ct., St. Louis 17, Mo.—R. W. Scott & Associates, 2345 Fourth St., Berkeley, Calif.; Fuel Engineering Co., 3900 Medford St., Los Angeles 63; A. C. Baechlin Co., P. O. Box 912, Phoenix; Wiant Products Co., 1231 N. W. Hoyt, Portland; Nelson English, 1231 N. W. Hoyt St., Portland.

**INDUSTRIAL MICA CORP.**, 233 S. Van Brunt, Englewood, N. J.—Yarbrough Sales Co., 2636 Mission St., San Marino, Calif.

**INDUSTRIAL SAFETY BELT CORP.**, 568 S. Aiken, Pittsburgh, Pa.—Wayne C. Wells, 6055 N. E. Glisan, Portland; Armite Laboratories, 6609 Broad, Los Angeles; Wm. Peyser, Jr., 1506 N. Weber, Colorado Springs, Colo.

**INDUSTRIAL TAPE CORP.**, New Brunswig, N. J.—(See Permacel Tape Corp.)

**INDUSTRIAL TIMER CORP.**, 1407 McCarter Highway, Newark, N. J.—E. V. Roberts & Associates, 5068 W. Washington Blvd., Los Angeles; 1560 Laurel St., San Carlos; and 909 N. First St., Phoenix; C. B. Parsons, 3028 First Ave., Seattle; Hyde Electronics Co., 888 Lipan St., Denver 23.


Manufacturer of adjustable metal framing—channel and fittings

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**Prime Western Resource**

*Free Catalog on Request*

**Industrial Tubular Equipment Co.**
12906 N. Saticoy St., No. Hollywood, Calif.
Triangle 7-9821


**INDUSTRIAL TUBULAR EQUIPMENT, 12906 Saticoy, North Hollywood, Calif.—Branch office: ITEECo. Colorado Corp., 3330 E. 54th Ave., Denver; Osborne Electric, Los Vegas, Nev.; Elder Construction Co., 333 7th St., San Francisco; Framing Material Supply, 455 So. 3rd St., Salt Lake City; Utilities Supply Co., 419 South 7th, Phoenix; Construction Devices, Portland; West Pacific Sales, Seattle; ITEECo Colorado Corp., Denver; Construction Tool Co., San Diego, Calif.; Marsden Equipment Ltd., 1358 Seymour St., Vancouver 2, B. C.; Von Hamm Loung, Honolulu, Hawaii. (See ad, p. 36)**

**INSTRUMENT LABORATORY, INC.**, 934 Elliott Ave. W., Seattle 99, Wash.—Branch Office: 1316 S. E. 7th, Portland; George R. Friederich & Co., 725 Tehama St., San Francisco 3; S. R. Brown Co., 14544 Archwood St., Van Nuys, Calif.

**INSUL-8-CORP.**, 1369 Industrial Road, San Carlos, Calif.—Industrial Products Co., 2911 First Ave. So., Seattle 4; J. A. Tudor & Associates, Inc., 1004 S. E. Belmont St., Portland 14; Fletcher Sales, 2216 Fifth St., Berkeley 10; C. H. Curriet Co., 2368 East Foothill Blvd., Pasadena, Calif.

**INSULATED DUCT & CABLE CO.**, Stokes Ave., Trenton, N. J.—Hodges & Glomb, 921 Bryant St., San Francisco; Albert S. Knight Co., 3010 Western Ave., Seattle.

**INSULATION MANUFACTURERS CORPORATION**, 565 W. Washington Blvd., Chicago 6, Ill.—Electrical Specialty Co., 2820 E. 12th St., Los Angeles 13, Calif.; 158 11th St., San Francisco 3, Calif.; 2026 Arapahoe, Denver 2, Colo.; 325 Northwest Sixth Ave., Portland 9, Ore.; 2406 First Ave. S., Seattle; Tri-State Supply Corp., 544 S. San Pedro, Los Angeles 13; 554 Bryant St., San Francisco 7; 318 Occidental Ave., Seattle 4; Western Fibrous Glass Products Co., 739 Bryant St., San Francisco, and 4432 Fruitland Ave., Los Angeles 23; Insulation & Wires, Inc., 6415 E. Fleet St., Los Angeles; 1112 N. W. 19th Ave., Portland 12, and 450 Alabama St. San Francisco 10; J. R. Christensen Agency, 247 E. 5th St., Salt Lake City; Electric Motor Supply, 1646 Blake St., Denver; C. E. Riggs, 317 N. W. Broadway, Portland; Blackwood's, Inc., Div. H. I. Thompson Fiber Glass Co., 3609 Olympic Blvd., Los Angeles 23.

**INSULATION & WIRES, INC.**, 3435 Chateau, St. Louis, Mo.—Branch Offices: 6415 E. Fleet St., Los Angeles 22, 310 Shaw Road, South San Francisco, and 1112 N.W. 19th Ave., Portland 12.

**INTERLECTRIC CORP.**, P. O. Box 239, Warren, Pa.—(See Great Western Division)

**INTERLOCK DIV.**, Harvey Hubbell, Inc., 36 North Moore St., New York City 13, N. Y.—Avnet Interlock Corp., 8966 National Blvd., Los Angeles 34.

**INTERMATIC TIME SWITCH DIV.** of International Register Co., 2620 W. Washington Blvd., Chicago, Ill.—Keeler White Co. (in following cities): 615

7th St., San Francisco; 322 N. W. 4th St., Portland; 1041 6th Ave. So., Seattle; The McLoughlin Co., 811 E. 14th Place, Los Angeles; Shefler & Kahn, 240 So. 1st Ave., Phoenix; E. T. Vonier Co., 1160 Elati, Denver; J. R. Christensen Agency, 247 E. 5th St., Salt Lake City.

**INTERNATIONAL GRAPHITE & ELECTRODE DIV.**, Speer Carbon Co., St. Mary's, Pa.—E. A. Wilcox Co., 173 Utah, So. San Francisco; 6436 E. Corvette St., Los Angeles 22; 915 Arctic Bldg., Seattle 4.

**INTERNATIONAL METAL PRODUCTS CO.**, 500 S. 15th St., Phoenix, Ariz.—Don Smith, P. O. Box 1712, Phoenix; Ray Morey, 2452 Micheltorena, Los Angeles 39; A. Meng, 5520 Thrill Place, Denver; A. G. Dalla Poza, 6112 Rainier Ave., Seattle 18.

**INTERNATIONAL NICKEL CO., INC.**, 67 Wall St., New York City 5—Pacific Metals Co., Ltd., 1900 3rd St., San Francisco; 2187 S. Garfield Ave., Los Angeles, 1533 India St., San Diego; Eagle Metals Co., 4755 1st Ave. S., Seattle, 2336 N. Randolph Ave., Portland, and Helena at Broadway, Spokane; Metal Goods Corp., 4343 Holly St., Denver.

**INTERNATIONAL RECTIFIER CORP., 233 Kansas St., El Segundo, Calif.—Representatives: Allen I. Williams, 2263 So. Albion St., Denver 22 and 3221 Silver S.E., Albuquerque; Eichorn & Melchior, 749 Bryant St., San Francisco 7; Ed. Foley & Assoc., 3840 N. Jokake Dr., Scottsdale, Ariz.; Fred H. Haight Co., 3212 Eastlake Ave., Seattle 2; Pacific-Electro Sales Inc., 1465 Deerhill Court, La Jolla, Calif. (See ad, p. 92.**

**INTERNATIONAL REGISTER COMPANY**, 2620 W. Washington Blvd., Chicago 12, Ill.—(See Intermatic Time Switch Div.)

**INTERNATIONAL TRANSFORMER CORP.**, 8208 E. Whittier Blvd., Montebello, Calif.—The Curry Co., 305 King St., San Francisco; P. E. Golsan, 1421 S. Flower, Los Angeles; J. H. Stumph, 1000 4th Ave., South, Seattle 4; Ralph Mooney, 411 S. 1st St., Phoenix; H. D. Kron, 836 Ocean View Dr., Honolulu 16, Hawaii.

**INTERSTATE DROP FORGE CO.**, Special Products Div., 4051 N. 27th St., Milwaukee, Wis.—K. M. Ryals Co., 461 Market St., San Francisco; H. M. Denny Co., 111 W. Harrison St., Seattle 99; R. D. Andrews, 5603 N. Figueroa St., Los Angeles; A. T. Toms, P. O. Box 315, Salt Lake City; H. C. Guire, 715 S. York, Denver 9; T. D. McGarry, 604 Utah Ave., Butte, Mont.; L. R. Phillips, 5603 N. Figueroa St., Los Angeles.

**IRVINGTON VARNISH & INSULATOR DIV.**, Minnesota Mining & Mfg. Co., 900 Bush Ave., St. Paul 6, Minn.—Minnesota Mining & Mfg. Co., 320 Shaw Rd., So. San Francisco, 6023 S. Garfield Ave., Los Angeles, 3663 First Ave., Seattle; J. R. Christensen Agency, 247 East 5th South, Salt Lake City.

**IRWIN AUGER BIT CO.**, Wilmington, Ohio—H. M. Pforsich Co., 553 Monadnock Bldg., San Francisco, 6177 York Blvd., Los Angeles 42, and 400 Boren Ave. No., Seattle.

**I-T-E CIRCUIT BREAKER CO., 19th and Hamilton Sts., Philadelphia, Pa.—District Offices: Western Reg. Mgr., Robert G. Petersen, 116 New Montgomery St., San Francisco 5; 230 Ryan Way, So. San Francisco; 655 Broadway, Denver, and 1921 East 7th St., Los Angeles 22. Sales Offices: Garland Affolter Eng'g. Corp., 1233 N.W. 12th Ave., Portland 9, Ore., and 2603 Western Ave., Seattle; Riter Engineering Co., 1369 Major St., Salt Lake City 1, Utah; Central Station Equipment Co., 2323 Aviation Highway, Tucson; R. L. Brewer Co., Inc., 102 S. El Paso St., El Paso; R. E. McDonough Co., 829 Maryland Ave., Butte, Mont.**

**ITEECO, 12906 Saticoy St., North Hollywood, Calif. —Branch Office: ITEECo. Colorado Corp., 3330 E. 54th Ave., Denver. Distributors: Elder Construction Co., 333 7th St., San Francisco; Construction Tool & Supply, 1815 Hancock, San Diego 1; Construction Devices, Inc., 435 N. Tillamook, Portland 12; Framing Material Supply, 455 S. Third East, Salt Lake City; Osborne Elec. Co., 835 West Bonanza Road, Las Vegas, Nev.; West Pacific Sales, 325 Second Ave. West, Seattle 99; Utilities Supply Co., 419 S. 7th St., Phoenix; The Von Hamm-Young Co., P. O. Box 2630, Honolulu 3, Hawaii. (See ad, p. 36)**

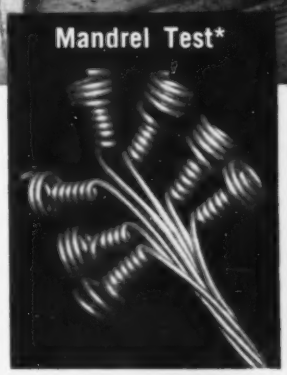
**ITT COMPONENTS DIVISION, 100 Kingsland Rd., Clifton, N. J.—Branch: 815 South San Antonio Rd., Palo Alto, Calif.; K. O. Pritzlaff, 225 Santa Monica Blvd., Santa Monica; J. W. Marsh Co., 4216 W. Jefferson Blvd., Los Angeles, and 1258 Fitzgerald Ave., San Francisco; Samuel N. Stroum Co., 1612 Broadway, Seattle.**

**JACKSON ELECTRICAL CO.**, 900-910 W. Van Buren St., Chicago 7, Ill.; Pete Bach Electric, 1233 N. W. 12th Ave., Portland 9.

**JACO PRODUCTS**, 2150 St. Clair Ave., Cleveland, Ohio—Harry E. Marshall, 104 Olive St., San Francisco 9.

Crapo GALVANIZED

# STEEL STRAND

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Every coil of wire used in the manufacture of *Crapo* Galvanized Steel Strand is tested and approved by trained laboratory technicians. Samples from both ends of each individual coil are subjected to a series of prescribed tests before stranding. Then, the finished strand is re-checked to make certain that it conforms in every respect to established specifications and our own high quality standards.

Thus you know when you specify *Crapo* Galvanized Strand that every precaution has been taken to assure maximum performance in the finished product.

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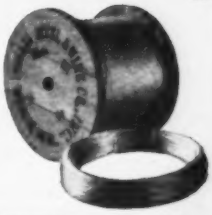
"The Story Behind **Crapo** Galvanized Wire and Strand" illustrating and describing manufacturing techniques and testing procedures. Ask for Booklet B-59!

## AVAILABLE IN 3 COATING WEIGHTS

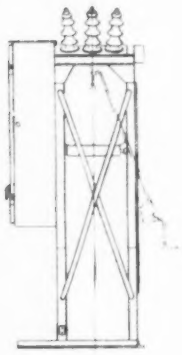
**FOR GUYS, MESSENGER AND OVERHEAD-GROUND WIRE**

**Crapo** Steel Strand is available in all standard sizes and grades and in Class A, B and C galvanized coatings. Class B coating is twice as heavy as Class A coating; Class C coating is three times as heavy.



*Determines ductility of wire and adherent quality of galvanizing.

INDIANA STEEL & WIRE CO., INC.
Muncie, Indiana



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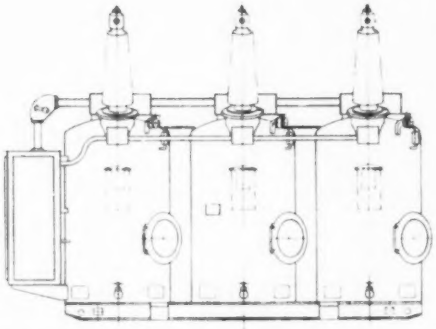
SINCE 1908

## POWER CIRCUIT BREAKERS

100-15,000 MVA

14.4 KV

FOR LOCAL SALES OFFICE SEE INDEX



230 KV

I-T-E CIRCUIT BREAKER COMPANY
KELMAN POWER CIRCUIT BREAKER DIVISION


**JANCO CORP.**, 3111 Winona Ave., Burbank, Calif.—Norwest Co., 210 N. 36th St., Seattle; Paul Hildebrand, 6132 Tarragona Dr., San Diego

**JANETTE MANUFACTURING CO.**, Lehigh at Main, Morton Grove, Ill. — Branch: 36 Second St., San Francisco; Electric Motor Eng. Co., 8255 Beverly Blvd., Los Angeles; Norman Rupp Co., 103 S. W. Front Ave., Portland; Felix Simon, Box 614, Denver; J. W. Reynolds Co., 1481 S. Main, Salt Lake City.

**JAY LIGHTING MFG. CO., INC.**, 25 Quincy St., Brooklyn, N. Y.—John Brill, 1216 Justin Ave., Glendale, Calif.; Pete Bach, 1233 N. W. 12th Ave., Portland; Lyle Heaton, 520 76th Ave. N. E., Medina, Wash.; John Roth, 5500 E. 33rd Ave., Denver.

**JEFFERSON ELECTRIC CO.**, 25th and Madison, Bellwood, Ill.—J. G. Pomeroy Co., 1004 E. 4th St., Los Angeles; F. C. Scharr, 1500 Westlake Ave., No., Seattle; Hodges & Glomb, Inc., 921 Bryant St., San Francisco; E. T. Vonier Co., 1160 Elati, Denver 3; L. O. Dugan, 5257 Bluebell, No. Hollywood, Calif.; Darger Co., 211 So. 2nd West, Salt Lake City.

**JELLIFF MFG. CO., THE C. O.**, Southport, Conn.—Elecrtical Specialty Co. in following cities: 158 Eleventh St., San Francisco 3; 2820 E. 12th St., Los Angeles 23; 2026 Arapahoe St., Denver 5; 212 Northwest 14th Ave., Portland 9; 2406 First Ave. S., Seattle 4; and P. O. Box 232, Phoenix.

**JENKINS BROS.**, 100 Park Ave., New York City—O. W. Coombs, 1026 So. Olive St., Los Angeles; The Sanderlin Co., 129 First Ave. West, Seattle; H. L. Rawlins Co., 230 S. 4th West, Salt Lake City; Ralph B. Black, 721 Loma Vista Dr., Albuquerque; G. M. Howard & Assoc., 1301-6th St., San Francisco.

**JENN AIR PRODUCTS CO., INC.**, 1102 Stadium Dr., Indianapolis, Ind.—E. C. Cooley Co., 1186 Folsom St., San Francisco; Herlin Eng. Co., 1601 Bassett Ave., El Paso; A. C. Baechlin, 1237 N. Sunset Trail, Scottsdale Ariz.; A. A. Maycock Co., 330 W. 7th S., Salt Lake City; Air Purification Co., 2405 W. 32nd Ave., Denver; John Condon Co., Inc., 1109 N. 35th St., Seattle; Wm. S. Turner Co., Pacific Bldg., Portland; Paul E. Bradfield Co., 864 Robertson Blvd., Los Angeles; John L. Harvey Co., 121 S. Monroe St., Spokane.

**JENNINGS RADIO MFG. CORP.**, 970 McLaughlin, San Jose, Calif.

**JENSEN MFG. CO.**, 6601 S. Laramie Ave., Chicago, Ill. — R. G. Bowen, 721 S. Broadway, Denver; George S. Tivy, 2230 W. 11th St., Los Angeles 6; Shefler-Kahn Co., 240 S. First Ave., Phoenix; Sinal-Johnson, Inc., 845 Jessie St., San Francisco; Samuel N. Stroum, 1612 Broadway, Seattle 22

**JERROLD ELECTRONICS CORP.**, 15th and Lehigh, Philadelphia, Pa.—Don H. Burcham, 510 N. W. 19th Ave., Portland; David Ross Co., 534 El Camino Real, San Carlos, Calif.

**JET GUN CO., INC., 730 Seigle Ave., Charlotte, N. C. — sold through electrical wholesalers, all principal cities. California Wholesale Electric Co., 2548 Yates Ave., Los Angeles 22.**

**JONES DIV., HOWARD B. CINCH MFG. CORP. — 1026 S. Homan Ave., Chicago, Ill.—A. C. Maynard, 1709 W. 8th St., Los Angeles.**

**JOHNS-MANVILLE, 22 E. 40th St., New York City 16—Johns-Manville Sales Corp.: 116 New Montgomery St., San Francisco 5; 430 40th St., Oakland 9, Calif.; 1755 Glenarm Pl., Denver 2; 507 Dooly Bldg., Salt Lake City; 611 S. Catalina St., Los Angeles 5; 4303 Stone Way, Seattle 3.**

**JOHNS-MANVILLE DUTCH BRAND DIVISION**, 7800 Woodlawn Ave., Chicago, Ill.—M. H. Klinger Co. in following cities: 9409 W. Pico Blvd., Los Angeles; 440 Golden Gate Ave., San Francisco; 1016 First Ave. S., Seattle 4; 1230 Bellaire St., Denver; Dick E. Blanchard, 14132 Runnymede St., Van Nuys, Calif.; Gary D. Hodgson, 33 No. Knoll Rd., Mill Valley, Calif.

**JOHNSON TOOL CO.**, 207 Robie Drive, Auburn, Calif.—Western Welding Works, 5946 Don Way, Carmichael, Calif.; Miners Foundry, Spring St., Nevada City, Nev.; Timothy Kaarto, 1753 Virginia St., Berkeley 3, Calif.

**JONES, HOWARD B.**, Div. Cinch Mfg. Corp., 1026 S. Homan Ave., Chicago, Ill.—Branch Offices: 1709 W. 8th St., Los Angeles.

**JOSLYN MFG. & SUPPLY CO.**, 155 N. Wacker Drive, Chicago, Ill.—Branch Offices: Joslyn Pacific Co., 5100 District Blvd., Los Angeles; 180 Potrero Ave., San Francisco; 2424 First Ave. So., Seattle; 808 N. W. 16th St., Portland; 560 Gale St., Salt Lake City; 2035 W. McDowell Rd., Phoenix. Sold through Electrical Distributors all principal cities.

**JOY MFG. CO.**, Electrical Products Div., 1201 Mackland Ave., St. Louis 10, Mo.—Branch: Compton, San Francisco, Los Angeles, Denver, El Paso, Salt Lake City, Butte, Kellogg, Ida., Spokane, Portland, and Seattle. **Distributors**: Phillips & Edwards, 265 Vermont St. San Francisco; North Coast Electric, 171 Jackson St., Seattle 4; Tinling & Powell, E. 706 Sprague Ave., Spokane. Agents: Norman R. Schultz Co., 4227 Airport Way, Seattle, Wash.

**K-E SALES CORPORATION**, P. O. Box 2228 Gardner St. Sta., St. Louis, Mo.—Steve Babcock, 3573 Pierce St., San Francisco 23; R. C. English & Associates, 4229 122nd Ave., S. E., Bellevue, Wash.

**KPF ELECTRIC CO., 1624 East Alpine Ave., Stockton 5, Calif.**

**KAISER ALUMINUM & CHEMICAL SALES, INC., Electrical Conductor Div., General Sales Office, Kaiser Center, Oakland, California—Western Branch Offices at 1220 S. W. Morrison St., Portland; W. 601 Riverside, Spokane; Statler Center, 900 Wilshire Blvd., Los Angeles; 655 Broadway, Denver; 213 N. First Ave., Phoenix; 438 Olive St., San Diego; 360 22nd St., Oakland 12; 910 5th Ave., Seattle 4. (See ad, pp. 40, 41)**

**KAMPHAUSEN CO., DAN, Continental Oil Bldg., Denver, Colo.—Paul Ousley, 10710 S. W. Elysium Ave., Portland; George Barrett, 4741 7th Ave., Sacramento; Frank Stogdill, 743 Lake Elmo Road, Billings, Mont. (See ad, p. 39)**

**KANTHAL CORP.**, Stamford, Conn. — Montgomery Brothers, 1122 Howard St., San Francisco; 1632 N. W. Johnson St., Portland, and 911 Western Ave., Seattle; Jackson Edwards Co., 4101 Lankershim Blvd., Los Angeles.

**KATOLIGHT CORP.**, First Ave. and Chestnut, Mankato, Minn.—Star Machinery Co., 241 Lander St., Seattle; Frazier Wright Co., 2315 South Hill St., Los Angeles; Chas. L. Thompson, 3093 Woodbine Dr., North Vancouver, B. C.; Central Station Equip. Co., 2323 Aviation Highway, Tucson; L. A. Christopher Co., 1715 York St., Denver.

**KAYLINE CO.**, 2480 E. 22nd St., Cleveland, Ohio—Jack Finkelstein, 546 W. Encanto Blvd., Phoenix; Ray Alexander, 940 Stout St., Blackfoot, Ida.; W. B. Roth, P. O. Box 9167, Denver 20.

**KEARNEY CORP., JAMES R., 4236 Clayton Ave., St. Louis, Mo.—Maydwell & Hartzell, Inc., in following cities: 870 Tennessee St., San Francisco 3; 427 W. 5th St., Los Angeles 13; 306 Dexter Ave., Seattle 4, and 2318 N. W. Vaughn St., Portland 10; 121 S. Monroe St., Spokane; Conely Engineering Co., 165 S. First W. St., Salt Lake City; Robert Smith, 311 Nineteenth St., Boulder, Colo.**

**KELLEMS CO.**, 15 Williams St., Stonington, Conn.—R. E. Cunningham & Son, 530 West 6th St., Los Angeles; George E. Honn Co., 420 Market St. San Francisco; Sales Engineers Co., 211-212 Wazee Market, Denver.

**KELLOGG SWITCHBOARD & SUPPLY CO.**, 6650 S. Cicero Ave., Chicago, Ill.—Branch Offices: 23 Broderick Road, Burlingham, Calif. Representatives: Stanley A. Carlfeldt, 205 J. S. Ditty Bldg., Bellevue, Wash.; H. E. Mundy, 5024 Lankersheim Blvd., North Hollywood, Calif.

**KELMAN POWER CIRCUIT BREAKER DIVISION, I-T-E CIRCUIT BREAKER COMPANY, 1667 North Main St., Los Angeles 12, Calif.—C. E. Ingalls & Sons, 681 Market St., San Francisco 5, Calif.; Eicher & Company, 5 West Harrison St., Seattle 99, Wash.; W. H. Eddy Electric Products, Inc., 5153 N. 29th Ave., Phoenix, Ariz.; Cline Equipment Company, 233 S.W. Temple St., Salt Lake City 1, Utah. I-T-E Circuit Breaker Company, 1921 East 7th St., Los Angeles 21, Calif.; R. L. Brewer Company, Inc., 100 S. El Paso St., El Paso, Texas; R. E. McDonough Co., 829 Maryland Ave., Butte, Mont. (See ad, p. 38)**

**KELNOR MANUFACTURING CORP.**, 1355 Market St. San Francisco 3, Calif.—Clay Estes Co., 1355 Market St., San Francisco.

**KENDALL CO.**, 309 W. Jackson Blvd., Chicago, Ill.—Aetna Sales & Tech. Co., Inc., 420 Market St., San Francisco; Hobart Bros., 200 Davis St., San Francisco. Stocking Distributor: Phillips & Edwards Elec. Corp., San Francisco, Stockton, Redwood City, Santa Rosa; Incandescent Supply Co. San Jose, Redding, Fresno, Sacramento.

**KENNECOTT WIRE & CABLE CO.**, Bourne Ave., Phillipsdale, R. I.—Chase Brass & Copper Co., 6500 E. Washington Blvd., Los Angeles, 233 Shaw Road South San Francisco 7, and 1957 First Ave., South Seattle 4.

**KEN-RAD LAMP DIV., WESTINGHOUSE ELEC. CORP., Owensboro, Ky.**—Ray H. Elliott, 336 So. Anderson, Los Angeles 33; D. A. Steinkamp, 936 St. Paul St., Denver 6; James J. Backer, 221 West Galer St., Seattle 99. Stocking Distributors: Phillips & Edwards Elec. Corp., San Francisco, Santa Rosa, Oakland, Stockton, Redwood City; Incandescent Supply Co., San Jose, Los Angeles, Redding, Fresno, Sacramento, Pasadena.

**KENT LIGHTING CORP.**, 500 Johnson Ave., Brooklyn 37, N. Y.—Pete Bach, 1233 N. W. 12th Ave. Portland.

**KERITE COMPANY, 30 Church St., New York City—Branch Offices: The Kerite Co., Robert A. Young, Pac. Coast Mgr., 3901 San Fernando Road, Glendale 4, Calif., and 681 Market St., San Francisco. Fred W. Carlson, 1201 Dexter Ave., Seattle 9, 935 N.W. 12th Ave., Portland, and 604 Utah Ave., Butte, Mont.**

**KESTER SOLDER CO.**, 4201 Wrightwood Ave., Chicago 39, Ill.—Laurence Shriver Co., 714 Olympic Blvd., Los Angeles; L. M. Skelton, 401 S. Burnside Ave., Los Angeles 36, and No. 1 Skyline Drive, Daly City, Calif.; Distributor: Sloss & Brittain, 100 Potrero, San Francisco

# Keep your standing poles . . . standing *INDEFINITELY** *by cyclical inspection and ground-line treating*

Indefinitely is a long time. However, many years of practical experience by a number of Utility Companies proves that you can reliably extend the service life of your older standing poles for at least 10 years with one OSMOPLASTIC groundline application.

After ten years another inspection and OSMOPLASTIC treatment assures an additional ten years of trouble-free service. This cyclical type of program which is being carried out by many well-managed Utility Companies simply adds up to safe poles at *lowest per year cost.*

*** PROOF AFTER 10 YEARS**

This pole was inspected and given Osmoplastic groundline treatment ten years ago. At that time decayed wood was removed. A few months ago this pole was re-inspected. It was perfectly sound and re-treated with Osmoplastic. PROOF that you can be assured of the savings which proper inspection and groundline treatment provide.

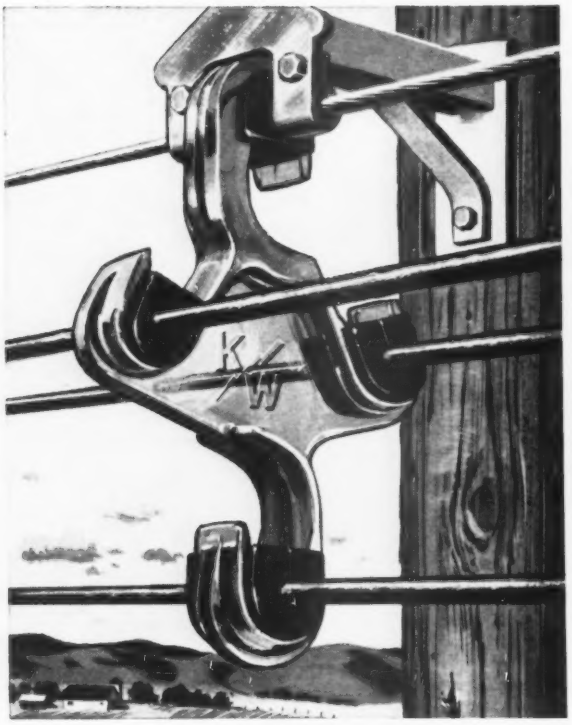
*In 15 years we have treated over two million poles without one dissatisfied customer.*

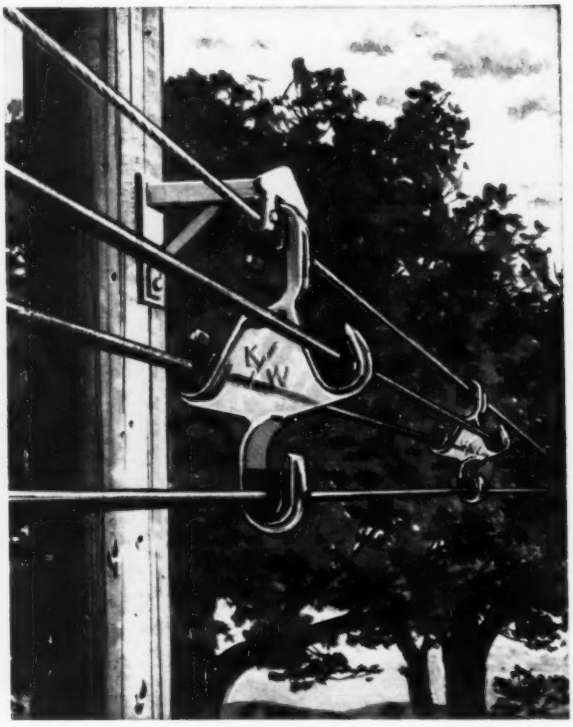
**DAN KAMPHAUSEN CO.**

CONTINENTAL OIL BLDG., DENVER 2, COLORADO

**Pole Inspectors & Treaters, Inc.** **Pole Sprayers, Inc.**

# NEW KW SPACER TYPE AERIAL ADDS STRENGTH, CUTS COSTS,





### One-Piece Design—Supports 1200 Pounds

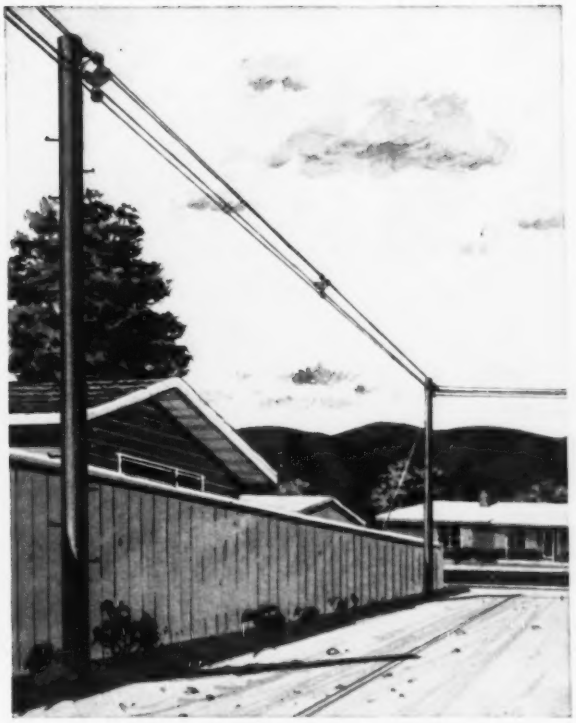
New solid spacer design has no loose parts nor movable pieces . . . it's simple, reliable and strong. Can support a minimum distributed load of 1200 pounds. Easy to install, since only one conductor is handled at a time. Snap-in grommets shaped to ease installation. Can be used with or without crossarms; standard hardware available from many suppliers.

### Cuts Material Costs and Tree Trimming

A KW Spacer Cable system can be installed for as little as one half the cost of standard pre-assembled aerial cable!

Compared to open-wire weatherproof, the reduced tree trimming and improved system dependability resulting from messenger supported cables can justify the spacer system's slight additional cost.

# CABLE SYSTEM IMPROVES APPEARANCE



**Reduced Spacing Improves Appearance**

Compared to open wire, closely spaced conductors present a neat, compact arrangement that improves appearance wherever it is installed. Close 6-inch spacing also improves system electrical characteristics . . . permits easy phase identification and proper load balancing. Usual installation practice is approximately 35 spacers per 1000 feet.

WITH its unique new spacer design, KW now offers you unsurpassed dependability and handling ease for cable systems operating at 5 to 15 kv, by using only one spacer for the whole range of voltages.

No tools or tightening necessary: entire spacer system snaps in and locks.

The system consists of four parts: (1) Phase conductors (EC grade aluminum, minimum conductivity 62 per cent, insulated with Polyethylene or Butyl rubber with Neoprene jacket); (2) Special high-strength messenger; (3) Molded one-piece spacers; (4) Molded Neoprene cable-retaining grommets.

Standard hardware is available from leading suppliers. Call your Kaiser Aluminum sales office or KW distributor for immediate service and full information.

Kaiser Aluminum & Chemical Sales, Inc., 1924 Broadway, Oakland 12, California.

KAISER ALUMINUM

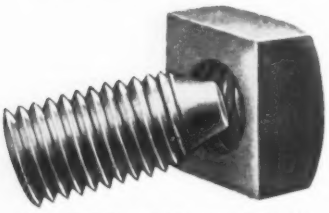
"IF IT CARRIES CURRENT, KW CARRIES IT!"

See "MAVERICK" • Sunday Evenings, ABC-TV Network • Consult your local TV listing.

**DEPENDABLE POLE LINE CONSTRUCTION *DEMANDS***

**Cross Arm Braces**

**"HANDIDRIVE" Pole Steps**



Handipoint **Bolts and Rods**

**High Tensile Bolt Guy Clamps**

*Manufactured and Stocked For Your Convenience On The Pacific Coast*

KORTICK

**MANUFACTURING COMPANY**

**5600 Third Street, San Francisco 24**
**Telephone VAlencia 6-6107**

**SALES OFFICES & WAREHOUSE STOCKS AT**

**Maydwell & Hartzell, Inc.**

**Los Angeles & San Francisco, Calif.**
**Seattle & Spokane, Wash.**
**Portland, Oregon** **Phoenix, Arizona**

**NATIONAL ELECTRIC SUPPLY CO.**

**HONOLULU, HAWAII**


**KETT TOOL COMPANY,** 5055 Madison Road, Cincinnati 27, Ohio—James E. Allen, Box 86, Pacific Palisades, Calif.

**KEYSTONE MFG. CO.,** 23328 Sherwood, Center Line, Mich.—Hollis R. Johnson, 5523 Timberwolf, El Paso; Sheeter & Co., 1417 Georgia St., Los Angeles; Fred D. Benz Co., 520 4th St., San Francisco; H. M. Denny Co., 111 West Harrison, Seattle 99; A. J. Nelson Co., P. O. Box 5502, Denver 17 and P. O. Box 904, Billings.

**KIDDE & CO., INC., WALTER,** 675 Main St., Belleville 9, N. J.—District Office: 4845 W. Exposition Blvd., Los Angeles 16. Sold through leading distributors in all principal cities.

**KILLARK ELECTRIC MFG. CO., 3940 Easton Ave., St. Louis 13, Mo.—Northwestern Agencies, Inc., 4130 First Ave. So., Seattle 4, and 2941 N.W. Quimby, Portland 10; F. M. Nicholas Co., 714 Harrison St., San Francisco 7; Kenneth Anderson Co., 123 So. Myers St., Los Angeles 33; Kenneth C. Schumann, 1073 Galapago, Denver 4; Melvin Long, 422 So. 7th, Phoenix; Matt Cabot & Associates, 1263 Kukila St., Honolulu 18, Hawaii.**

**KIM MFG. CO.,** 42 S. DeLacey, Pasadena, Calif.—Humber & Walker Co., 314 12th St., San Francisco; J. R. Penning, 2323 2nd Ave., Seattle; Gregg Cloos, 977 Jackson, Denver.

**KIMBLE GLASS CO.,** Sub. of Owens-Illinois, Toledo Ohio—Maydwell and Hartzell, Inc., 427 West 5th St., Los Angeles 13, 870 Tennessee St., San Francisco 7, 2318 N. W. Vaughn, Portland 10, 306 Dexter Ave., Seattle; Joslyn Pacific Company, 5100 District Blvd., Los Angeles, 180 Potrero Ave., San Francisco, 808 N. W. 16th Ave., Portland, 2424 First Ave. S., Seattle 4, and 1427 East 3045 South St., Salt Lake City 6; Line Material Co., 6490 East Fleet St., Los Angeles 22, 360 Shaw Road, South San Francisco, 1333 N. W. 12th Ave., Portland, 1220 West Nickerson St., Seattle 99, East 3303 Ferry St., Spokane, and 980 South 6th West St., Salt Lake City.

**KINDORF,** Div., Steel City Electric, 1207 Columbus Ave., Pittsburgh 33, Pa.—Hodges & Glomb, 921 Bryant St., San Francisco; Murphy-Hain, 2133 Bay St., Los Angeles; Northwestern Agencies, 4130 First Ave. South, Seattle; Fred E. Staible & Sons, 2046 Arapahoe St., Denver.

**KING ELECTRICAL MFG. CO.**—Keeler White-Portland, 322 N. W. 4th Ave., Portland, and Keeler, White, Inc., 1041 6th Ave. So., Seattle.

**KINNEY ELECTRICAL MFG. CO.,** 678 Buckeye, Elgin, Ill.—Colorado Western Sales, P. O. Box 4133, S. Denver Sta., Denver; Hollis R. Johnson, 5528 Timberwolf Dr., El Paso, Tex.; McGillan Sales Co. 1100 Hermosa Dr. S.E., Albuquerque.

**KIRKLAND CO., THE H. R.,** 8-10 King St., Morristown, N. J.—Fred D. Benz Co., 520 4th St., San Francisco; P. E. Golsan, Jr., 1421 S. Flower, Los Angeles; Nelson English, 1231 N. W. Hoyt, Portland.

**KIRKWOOD COMMUTATOR CO.,** 4855 W. 130th St., Cleveland, Ohio—Insulation & Wires, Inc., in following cities: 6415 E. Fleet St., Los Angeles; 450 Alabama St., San Francisco, and 1112 N. W 19th Ave., Portland.

**KIRLIN CO.,** 3435 E. Jefferson, Detroit 7, Mich.—Bruce Emmett Co., 830 S. E. Alder St., Portland 14; Robt. E. Jones, 444 Dexter Horton Bldg., Seattle; Benndorf, 221 E. Camelback Rd., Phoenix; Douglas E. Bolton, 2795 E. 3220So., Salt Lake City 9; Jim Shirreffs Co., 3601 S. Broadway Place, Los Angeles; Stanley Sales Corp., 1122 Folsom St., San Francisco.

**KISCO COMPANY, INC.,** St. Louis 4, Mo.—Smallcomb Electric Co., 1120 S. Main St., Los Angeles 15.

**KLEIN & SONS, MATHIAS, 7200 McCormick Rd., Chicago, Ill.—C. L. Woolsey, 1320 Opachee Way, Glendale, Calif.; R. C. Heerdink, 1719 Calgary Dr., Sunnyvale, Calif. (Sold by electrical supply, Mill Supplyq and Wholesale Hardware Supply firms all principal cities.) (See ad, p. 43)**

**KNOPP, INC., 1307 66th St., Oakland 8, Calif.—C. C. Blacksmith, 115 N. Grandview, Covina, Calif.; Arthur E. Booth, 265 S. Alexandria Ave., Los Angeles 4; Wm. M. Jewell, c/o Washington Athletic Club, 6th and University, Seattle; Hamilton Associates, 1236 Elati St., Denver 4; The MaBi Co., P. O. Box 835, Oakland 4. (See ad. p. 42)**

**KNOX PORCELAIN CORP.,** Knoxville, Tenn.—Bruce-Emmett Co., 1016 First Ave. So., Seattle 4, and 830 S. E. Alder St., Portland; The Baxter Co., 101 Kansas St., San Francisco; Ralph L. Mooney, 542 E. Rose Lane, Phoenix; Matzinger-Johnson, 1329 Willow St., Los Angeles 13.

**KOCH, FRED O.,** West 1312 Kiernan Ave., Spokane, Wash.

**KOHLER CO.,** Kohler, Wis.—Branch Office: 570 Sutter St., San Francisco; 900 Tower Bldg., Seattle, 3458 Wilshire Blvd., Los Angeles.


**KNOPP INC.**

***manufacturers of precision products:***

METER-TESTING EQUIPMENT • ROTATING-STANDARD TESTING EQUIPMENT • UNILOAD INSTRUMENT-STANDARDIZING EQUIPMENT • PHASE SEQUENCE INDICATORS • PRECISION MULTIRANGE CURRENT TRANSFORMERS • PRECISION SPLIT-CORE CURRENT TRANSFORMERS • PRECISION MULTIRANGE POTENTIAL TRANSFORMERS • POWER FACTOR AND LOAD SURVEY EQUIPMENT • CURRENT TRANSFORMER TESTING EQUIPMENT • POTENTIAL TRANSFORMER TESTING EQUIPMENT • UNILOAD SETS • SPECIALTY TRANSFORMERS • LOADING TRANSFORMERS • STANDARD BURDEN SETS • VOLTAGE TESTERS • BATTERY CHARGERS • POWER RECTIFIERS • PHASE SHIFTERS • KNOPP TRANSFORMER COMPARATORS

**ENGINEERING SERVICE**—*We invite your inquiries on any requirement you may have for special coils, complete transformers, or electrical testing equipment.*

**KNOPP INC.**

*Founded in 1928 by Otto A. Knopp under the name of Electrical Facilities Inc.*

**1307 66th St., Oakland 8, Calif.**


**KOILED KORDS, INC.,** 1565 Dixwell Ave., New Haven 14, Conn.—Summer-Whiting Co., 407 Commercial Center, Beverly Hills, Calif.; S. M. Sherman, Box 1362, Los Altos, Calif.

**KONDU CORPORATION,** 1040 West 12th, Erie, Pa.—Bruce-Emmett Co., 830 S. E. Alder, Portland, and 1016 First Ave. W., Seattle; F. D. Moran Co. Box 325, Phoenix; M. W. Blake, 1802 Blaine Ave. Salt Lake City.

**KOPPERS COMPANY, INC.,** Metal Products Div., 200 Scott St., Baltimore, Md.—Branch Offices: 55 New Montgomery St., San Francisco, and 3450 Wilshire Blvd., Los Angeles.

**KORFUND CO., INC.,** 48-21 32nd Place, Long Island City 1, N. Y.—W. H. Steele & Co., 1612 W. Beverly Blvd., Los Angeles 26; Ralph Mills & Co., 325 Fifth St., San Francisco 7; E. N. Murray Co., 518 17th St., Denver 2; Charles E. Hamilton, 1217 Second Ave., Seattle 1; E. H. Price, Ltd., 8[illegible] Robson St., Vancouver B. C.

**KORNS COMPANY, C. C.,** 350 Southmont Blvd., Johnstown, Pa.—Incandescent Supply Co., 647 Mission St., San Francisco; Graybar Electric Co., 1750 Alameda St., San Francisco, and 210 Anderson, Los Angeles; Gough Industries, 827 E. 1st St., Los Angeles; General Electric Supply Co., 700 Turner St., Los Angeles; Westinghouse Electric Supply, 905 E. Second St., Los Angeles.

**KORTICK MFG. CO., 5600 Third St., San Francisco 24, Calif.—Maydwell & Hartzell, Inc., 870 Tennessee St., San Francisco, and 427 W. 5th St., Los Angeles 13, 2318 N. W. Vaughn, Portland 10, 306 Dexter Ave., Seattle 9; 121 S. Monroe St., Spokane; 324 So. Second Ave., Phoenix; Nat'l Elec. Supply, 611 Keeaumoku, Honolulu, Hawaii (See ad, p. 42)**

**KRALOY PLASTIC PIPE CO., 4720 E. Washington Blvd., Los Angeles, Calif.; The Curry Co., 305 King St., San Francisco 3; Fred Carlson, 1201 Dexter Ave., Seattle 9; 935 N. W. 12th, Portland; Kenneth B. Schumann Co., P. O. Box 6, Bountiful, Utah, and 1073 Galapago St., Denver; Ralph B. Black, 721 Loma Vista Dr., N. E., Albuquerque**

**KRYLON INC.,** Norristown, Pa.—Leslie D. Morrison, 704 The Alameda, Berkeley 7, Calif.; M. H. Miller, 1707 S. 15th St., Salt Lake City 5; Swan O. Kios, 8010 30th Ave., N. E., Seattle 5; H. M. Shoemaker, 1127 Wilshire Blvd., Los Angeles 17

201—famous Klein Side Cutting Plier. Sizes 5, 6, 7, 8 and 9 in.

201-NE—rounded nose side cutting plier. Sizes 5, 6, 7, 8 and 9 in.

213-9NE—high leverage plier. Will cut regular and weatherproof hard drawn copper wire up to No. 2.

301—long nose plier. Available in 5-, 6- and 7- in. sizes. Also may be had with cutters.

202—narrow nose oblique cutting plier. Available in 5- and 6-in. sizes.

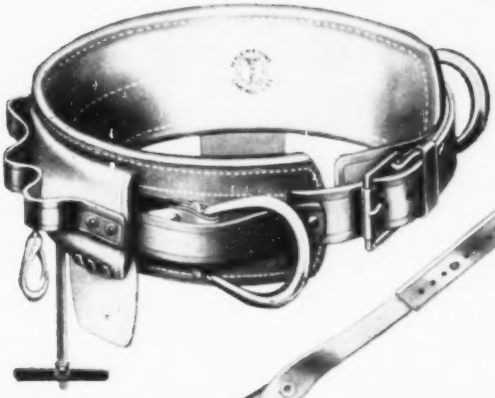
500—adjustable wrenches. 6, 8, 10, 12 in.

510—pump plier. One hand operation. Length, 9½ in.

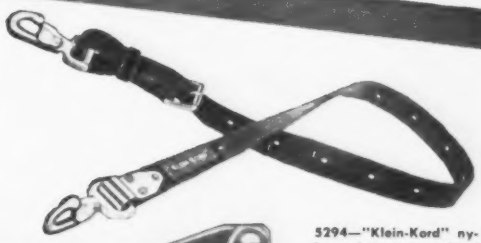
KLEIN TOOLS EST. 1857

## over a century of progress

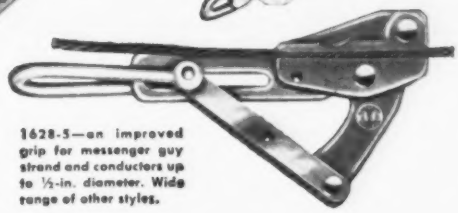
Klein has been the leading supplier of tools and equipment to the electrical industry since the first wires were strung. It was over 100 years ago that Mathias Klein first opened his little forge shop in Chicago. Today the name Klein is known for quality the world over. From your Electrical Distributor, you can secure anything you need in tools and equipment for linemen and electricians. Below are a few of the popular Klein items available.



5249—linemen's belt. Full floating with "Klein-Kord" sliding trace. One of a complete line.



5294—"Klein-Kord" nylon safety strap made of multiple plies of strong, woven nylon bonded with frictioning and vulcanized in neoprene.



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**LELAND ELECTRIC CO.,** 1501 Webster St., Dayton 1, Ohio—Branch Office: 7046 Hollywood Blvd., Los Angeles 28; J. F. Cady, 1485 Bayshore Blvd., San Francisco; Hubert Kaub & Co., 1025 Santa Fe Dr., Denver 4; J. E. Edstrom, 1224 S.W. Morrison St., Portland 5; Electrical Sales Co., P. O. Box 49 Sugarhouse Sta., Salt Lake City; Richard R. Hynes, 511 Hawkins Way, El Paso, Tex.; C. R. Dalton, 1037 Laurel, San Carlos, Calif.

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**LEONARD ELECTRIC MFG. CO.,** 3907 Perkins Ave., Cleveland, Ohio; W. E. Kirk Co., 415 Wall St., Los Angeles; J. H. Ormond, 600 16th St., Oakland.

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**LEVITON MFG. CO.,** 236 Greenpoint Ave., Brooklyn, N. Y.—Western Division: 385 E. 2nd St., Los Angeles 5; J. Driscoll, 2166 Market St., San Francisco, and J. M. Cavenaugh, 1132 N. W. Glisan, Portland 9; Roy J. O'Donnell, 1452 Galapago St., Denver 4.

**LEW ELECTRIC FITTINGS CO.,** 627 W. Lake St., Chicago, Ill.—F. J. Airey Co., 1513 S. Mateo St., Los Angeles 21; Guenther & Tate, 139 S. E. Taylor St., Portland, and 825 Taylor Ave., Seattle 9; George R. Magnes Co., Inc., 44 Berry St., San Francisco.

**LEWIS-SHEPARD PRODUCTS, INC.,** 125 Walnut St., Watertown 72, Mass.—M. E. Canfield Co., 419 E. Third St., Los Angeles 13; Howard Burt & Son, 501 Standish St., Redwood City; L. J. Clarke & Co., 2625-27 N. First Ave., Tucson; Harry H. Neumann, 1863 Wazee St., Denver; Modern Equipment Co., 52 W. 2nd So. St., Salt Lake City 1; Liftruck & Equip. Co., 558 1st Ave. South, Seattle 4 and 6840 S. W. Macadam Ave., Portland 1.

**LEXINGTON ELECTRIC PRODUCTS CO., INC.,** 12 Chapel St., Newark 5, N. J.—Tudor & Assoc., 1004 S. E. Belmont St., Portland 14; Muth-Richards Co., 1804 Bush Place, Seattle 44; Campbell & George Co., 1601 Cortland, San Francisco; Hundley Co., 3282 Fletcher Dr., Los Angeles 65.

**LIBERTY BELL MFG. CO.,** Swainsboro, Georgia—Roth Sales Co., 630 Jasmine St., Denver; Northwest Sales Co., 1603 N. W. Johnson, Portland; A. Allen Smith, 1513 Mateo St., Los Angeles; Thos. D. Noble Co., 210 12th St., San Francisco.

**LICON SWITCH & CONTROL DIV.,** Illinois Tool Works, 6606 W. Dakin St., Chicago, Ill.—Representatives: Ash M. Wood Co., P. O. Box 1158, Arcadia, Calif.; James Findlay Co., P. O. Box 717, Bellevue, Wash. Distributors: William J. Purdy Co., 312 7th St., San Francisco; Electronic Components Sales, Inc., 645 S. Broadway, Denver 9; Graybar Electric Co., 210 Anderson St., Los Angeles 54; Universal Radio Supply, 1729 S. Los Angeles St., Los Angeles 15; Electronic Supply Corp., 2085 Foothill Blvd., Pasadena, Calif.; Peninsula TV & Radio Supply, San Jose; H. G. Rising, Inc., 151 N. Vermont Ave., Los Angeles 4; Farwest Trading Co., 209 First Ave. South, Seattle 4; Vitus Elec. Supply, 140 E. Fifth Ave., Eugene, Ore.

**LIDSEEN OF NORTH CAROLINA, INC.,** 1102 1st St., Hayesville, N. C.—Graybar Electric Co., Inc., all principal cities; Seattle Tool & Supply, 924 E. Pike St., Seattle 24.

**LIGHTALARMS, INC.,** 95 Atlantic Ave., Brooklyn, N. Y.—W. E. Kirk Co., 415 Wall St., Los Angeles; J. E. Edstrom, 1224 S. W. Morrison, Portland 5; Robert Thallon, P. O. Box 937-Sta. A., San Mateo, Calif.

**LIGHT CONTROL INC.,** 850 E. 111th Place, Los Angeles, Calif.—Al Slater & Assoc., 9011 15th Ave., N.E., Seattle 15; Gene Seals, 520 E. St., Room 814, San Diego; Ralph Mooney, 411 South First St., Phoenix.

**LIGHTING DYNAMICS, INC., 802 W. Whittier Blvd., Whittier, Calif.—John Sankewich, 1485 Bayshore Blvd., San Francisco; Donald S. Gleason & Assoc., 47th & University Way, Seattle; Clyde E. Dodd, 628 N. Russett, Portland; Ray E. Wendling, P. O. Box 3721, Phoenix.**

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**LINCOLN ELECTRIC CO.,** 22801 St. Clair Ave., Cleveland, Ohio—Branch Offices: 1303 Stanford Ave., Emeryville, Calif.; 2661 So. Yates Ave., Los Angeles; 1034 N. E. Russet St., Portland 11; 543 W. Nevada Ave., Seattle 4; Industrial Supply Co., P. O. Box 600, Salt Lake City, 420 S. 3rd Ave., Phoenix, and 650 N. 6th Ave., Tucson; Great Northern Tool & Supply, Billings, Mont.

**LINCOLN LIGHTING PRODUCTS, INC.,** 4121 N. Rockwell St., Chicago, Ill.—Pete Bach Electric, 1233 N. W. 12th Ave. Portland.

**LINDBERG ENGINEERING CO.,** 2450 W. Hubbard St., Chicago, Ill.—Branch Offices: 11937 S. Regentview Ave., Downey, Calif., and 1485 Bayshore Blvd., San Francisco; Blair Engineering Co., 4100 Grape St., Denver 16; Western Factors Co., 2733 4th Ave. S., Seattle 4; McGowan Co., Inc., 1205 S. Boyle Ave., Los Angeles 23.

**LINDSEY MFG. CO.,** 222 Vista St., Pasadena, Calif. —Pacific Utilities Supply Co., 605 Third St., San Francisco 7; W. D. Howze Co., 5603 N. Figueroa, Los Angeles; K. M. Ryals Co., 461 Market St., San Francisco.

**LINE MATERIAL INDUSTRIES, Div., McGraw-Edison Co., 700 West Michigan, Milwaukee 1, Wis.—Branch Offices: Paul K. Churchill, West Coast Regional Manager, Los Angeles area, 7105 So. Paramount Blvd., Pico-Rivera, Calif.; 360 Shaw Road, South San Francisco; W. F. Smith, Mountain States Regional Manager, East 3303 Ferry St., Spokane; 1333 N.W. 12th Ave., Portland; 1220 West Nickerson St., Seattle; 614½ State, Boise, Idaho; 740 So. Nevada St., Butte, Mont.; 980 S. 6th West St., Salt Lake City 4; 1330 12th St. N.W., Albuquerque; 1123 Teneighth Way, Sacramento, Calif.; 4502 Lois Drive, Anchorage, Alaska; California Factory: 7533 Avenue 304, Visalia, Calif. Agents: J. E. Redmond Supply Co., 625 West Madison St., Phoenix, Arizona; Hawaiian Lighting & Supply, 1362 Kapiolani Blvd., Honolulu, Hawaii.**

**LINEMASTER SWITCH CORP.,** Woodstock, Conn. — Maddox Sales Co., 914 East Third St., Los Angeles; James M. Krotozyner, 544 Market St., San Francisco; Wayne C. Wells Co., 888 South Lipon St., Denver; and 5206 Constitution St., N.E., Albuquerque.

**LITECONTROL CORPORATION,** 36 Pleasant St., Watertown, Mass.—Al C. Slater & Associates, 9011 15th Ave., N. E., Seattle.

**LITECRAFT MFG. CORP.,** 8 East 36th St., New York City, N. Y.—Western Branch Office: Litecraft Mfg. Facific Corp., 545 Rodier Drive, Glendale 1, Calif.; Arthur & Allen, 420 Market St., San Francisco; Matt Cabot & Associates, P. O. Box 3708, Honolulu, Hawaii.

**LITE-MOR ELECTRIC MFG. CORP.,** Lebanon School Rd., West Mufflin Borough, Pittsburgh 36, Pa.—John Roth, 1315 Jasmine St., Denver; Allied Electrical Agencies, 1431 Minor Ave., Seattle.

**LITTELFUSE, INC.,** 1865 Miner St., Des Plaines, Ill. —Ash M. Wood, Box 1158, Arcadia, Calif.; Dave M. Lee, 2517 Second Ave., Seattle; McLoud & Raymond Co., 5403 E. Evans, Denver 22; Harry A. Moore Sales Co., 305 E. Indian School Road, Phoenix.

**LLOYD PRODUCTS CO.,** 114-116 Baker St., Providence 5, R. I.—The Sanderlin Co., 56 S. E. Belmont St. Portland, and 129 First Ave. W., Seattle.

**LOCUST PIN CO., INC.,** Front Royal, Virginia — Maydwell & Hartzell, Inc., in following cities: 870 Tennessee St., San Francisco 3; 427 W. 5th St., Los Angeles 13; 2318 N. W. Vaughn St., Portland 9; 306 Dexter Ave., Seattle 9; 324 So. Second Ave., Phoenix; 121 S. Monroe, Spokane.

**LORD MFG. CO.,** 1635 W. 12th St., Erie, Pa.—7046 Hollywood Blvd., Los Angeles 28.

**LOTRAN, INC.,** P. O. Box 2521, Baton Rouge, La.—Earl S. Condon Co., 3450 Wilshire Blvd. Los Angeles; C. E. Ingalls & Sons, Monadnock Bldg., San Francisco 5.

**LUCIFER FURNACES, INC.,** Neshaminy, Pa.—Matheson-Doherty Co., 225 S. Shaw Road, San Francisco; Mission Tool & Supply Co., 4349-C Slauson Ave., Maywood, Calif.; Equipment Sales & Mfg. Co., 1018 4th St., N. W. Albuquerque, N. M.; Paramount Mfg. Co., 1208 N. W. Glisan St., Portland.

**LUMA ELECTRIC EQUIPMENT CO.,** 1607 Coining Drive, Toledo, Ohio—Garrett Supply, 3844 Santa Fe Ave., Los Angeles; Thomas L. Stevens Co., 15222 Grevillia, Los Angeles; Claude Michael, 703 West Ivy St., Glendale 4, Calif.

**LUMIDOR MFG. CO., INC.,** 4801 E. 50th St., Los Angeles, Calif.—Through jobbers.

**LUMENITE ELECTRONIC CO.,** 407 S. Dearborn St., Chicago 5, Ill.—Jensen Instrument Co., 1919 W. Beverly Blvd., Los Angeles, and 429 Bryant St., San Francisco; Duncan Equipment Co., 506 Broadway, Seattle; Technical Sales Co., 1731 First Ave., South, Seattle.

**LUMINOUS CEILINGS, INC.,** 2500 West North Ave., Chicago 47, Ill.—Barney A. Hartley, P. O. Box 4381, Phoenix; R. E. Jones, 444 Dexter Horton Bldg., Seattle; Bernie Bricker, 1455 S. Orangethorpe, Fullerton, Calif.; David Merrill, 192 First Ave., East, Farmington, Utah; Branch: 2900 Santa Monica Blvd., Los Angeles 29.

**LUMINOUS EQUIPMENT CO.,** 1325 W. Webster Ave., Chicago 14, Ill.—Harry N. Lindsey, 1516 W. 81st St., Los Angeles 47.

**LUSTRA CORP. OF AMERICA,** 3233 47th Ave., Long Island City, N. Y.—Branch: 1440 - 4th St. Berkeley 10.

**LUXO LAMP CORP., 464 Bryant St., San Francisco—M. Bogen Company, 1683 Jerrold Ave., San Francisco. (See ad, p. 88)**

**LYNCH CARRIER SYSTEMS, INC.,** 695 Bryant St., San Francisco, Calif.—Graybar Electric Co., Inc., Western Electric Co., Inc., all cities.

**LYNN-DEATRICK, INC.,** (See Lerco.)

**LYON METAL PRODUCTS, INC.,** Aurora, Ill.—Branch Offices: 3650 Union Pacific Ave., Los Angeles 23; P. O. Box 3096, Rincon Annex, San Francisco 19; 1755 Utah Ave., Seattle 4; P. O. Box 3797, Portland 8; 1314 Wood St., Dallas 2; P. O. Box 1896, Oakland; 5545 North Kay Dr., Phoenix.

**McCABE-POWERS BODY CO., 625 Cedar St., Berkeley 10, Calif.—5525 S. E. 28th Ave., Portland 2, Ore.; 1461 E. Washington, Los Angeles 21, Calif. Main Office: 5900 N. Broadway, St. Louis 15, Mo.; Thomas R. Hall, Manager, McCabe-Powers Body Co. of California; Fred C. Hall, Sales Manager; W. S. Brooks, Los Angeles Branch Manager. Western Distributors are American Machine Company, 1026 W. Broadway, Spokane 1, Wash.; Paul K. Haggard Co., 4431 No. 7th St., Tacoma 6, Wash.; Williamsen Body and Equipment Co., 9th and Wall Sts., Ogden, Utah; Williamsen Body and Equipment Co., Poleline and Maple Sts., Pocatello, Idaho; Williamsen's, Inc., 1925 W. Indiana Ave., Salt Lake City, Utah; Auto Safety House, Inc., 4343 E. Washington, Phoenix, Ariz.; General Equipment Co., Ltd., P. O. Box 2837, Honolulu 3, Hawaii.**

**McCALL'S DESERT-AIR LAMPS**—(See Desert Air)

**McCORMICK & BAXTER CREOSOTING CO., P. O. Box 3344 (6900 N. Edgewater), Portland, Ore.—Branch Offices: 485 California St., San Francisco; 114 W. Broadway, Glendale, Calif. (See ad, p. 48)**

**McFARLAND CO., L. D.,** Box 390, Sandpoint, Idaho—Branch Office: Eugene, Ore.

**McGILL MFG. CO., INC.,** Valparaiso, Ind.—George A. Gray Co., 2720 17th St., San Francisco 10; J. G. Pomeroy Co., 1004 E. 4th St., Los Angeles 13; Frank A. Strohecker, 2207 1st Ave. So., Seattle 4.

**McKINLEY CO., BEN P.,** 626 West Jackson Blvd., Chicago, Ill.—C. W. Boswell, 1139 Mission St., San Francisco; J. R. Christensen Agency, 247 East 5th South, Salt Lake City 2; The Sanderlin Co., 129-31 First Ave. W., Seattle; The McLoughlin Co., 811 East 14th Place, Los Angeles 54.

**McPHILBEN MFG. CO., INC.,** 1329 Willoughby Ave., Brooklyn, New York—Humber & Walker, 314 12th St., San Francisco; Carl A. Peterson, 782 E. 14th Pl., Los Angeles; Wm. Benndorf Co., 221 E. Camelback Rd., Phoenix; Fred Gleason, 657 E. 45th St., Seattle; Gregg N. Cloos, 977 Jackson St., Denver; Wm. Benndorf Co., 4204 Palo Duro, N. E., Albuquerque, N. M.

**MB ELECTRONICS,** P. O. Box 1825, New Haven, Conn.—Pacific Scientific Co., 760 Harrison St., San Francisco, 6280 Chalet Dr., Bell Gardens, Calif., 1218 S. E. 7th Ave., Portland, 421 Michigan St., Seattle 8; 1950 5th Ave., San Diego.

**M.S.W. MANUFACTURING CO., INC.,** 1527 Niagara St., Buffalo 13, N. Y.—Ray J. Noel, 4315 S. Western Ave., Los Angeles 62.

**MACALLEN CO.,** Bay Road, Newmarket, N. H.—C. D. Le Moree, 2221 Fourth St., Berkeley 10; 2433 Birkdale, Los Angeles 31; 317 N. W. Broadway, Portland; 166 Jackson, Seattle.

**MACBETH DAYLIGHTING CORPORATION,** P. O. Box 950 Newburgh, N. Y.—E. S. Browning Co., 2321 Yates St., Los Angeles 22 and 1515 Third St., San Francisco.

**MACCORKLE, INC., D. S.,** 1 Newark St., Hoboken, N. J.—Ken Ryals Co., 461 Market St., San Francisco.

**MACK ELECTRIC DEVICES, INC.,** 33 Glenside Ave., Wyncote, Pa.—James L. Kearns Co., P. O. Box 5108, Portland 16.

**MADISON ELECTRIC PRODUCTS, INC.,** Madison, Ohio—Nourse Equipment Co., 2216 5th St., Berkeley, Calif.

**MAGNAVOX,** Bueter Road, Fort Wayne, Ind.—Branch Offices: 2255-59 Carmelina Avenue, Los Angeles 54, and 6480 Corvette, Los Angeles 22.

**MAGNI FLOOD, INC.,** 38 North Second Ave., Mt. Vernon, N. Y.—Sold in Western States by Shalda Mfg. Co., 156 West Providencia Ave., Burbank, Calif.

**MAGTROL, INC.,** 240 Seneca St., Buffalo, N. Y.—Joe Davidson & Associates, P. O. Box 108, Southgate, Calif.

**MAJOR EQUIPMENT CO.,** 4603 W. Fullerton Ave., Chicago, Ill.—E. B. Cook Co., 1063 Howard St., San Francisco; Wm. Benndorf, 221 E. Camelback Rd., Phoenix; A. C. Slater & Assoc., 9011 15th Ave., N. E., Seattle; Gregg N. Cloos Co., 977 Jackson, Denver.

**MAKOMB STEEL PROD.,** Div. Globe American Corp., N. Dudley, Macomb, Ill.—Chas. H. Lilly Co., Spokane; Monroe Dairy Machinery, Inc., Spokane; Duthin Seed Co., Lewiston; Cascade Supply Co., Portland; Polson Impl. Co., Seattle.

**MALLEABLE IRON FITTINGS CO.,** Pole Hardware Div., Branford, Conn.—Wm. J. Cottrell Co., 4000 S. W. Macadam Ave., Portland 1; Industrial Engineering & Equipment Corp., 2975 Wilshire Blvd., Los Angeles 5; Wrathall & Krusi, 1044 Monadnock Bldg., San Francisco 5; Slaybaugh-Thompson Co., 100 W. 13th Ave., Denver 4.

**MALLORY & CO., INC., P. R.,** 3029 E. Washington, Indianapolis, Ind.—Branch Office: 9121 East Garvey, Rosemead, Calif.; Hodges Glomb, 921 Bryant St., San Francisco; Don H. Burcham, 510 N. W. 19th Ave., Portland; Koether Cox Co., 120 West 13th Ave., Denver.

**MALLORY BATTERY CO.,** 1300 Athens Ave., Cleveland, Ohio—Don H. Burcham Co., 510 N.W. 19th Ave., Portland 9.

**MANHEIM MFG. & BELTING CO.,** 315 Stiegel St., Manheim, Pa.—A. W. Nash, 2112 S. Atlantic Blvd., Los Angeles; T. T. Watson, 508 5th Ave. So., Seattle.

**MANNING PAPER CO., INC., JOHN A.,** Troy, N. Y.—Insulation & Wires, Inc., in following cities: 6415 East Fleet St. Los Angeles; 450 Alabama St., San Francisco 10, and 1112 N. W. 19th Ave., Portland.

**MANNING CO., INC., R. A.,** Sheboygan, Wis.—F. C. Henkel Sales, 317 Builders Exchange Bldg., Portland; C. A. Peterson, 784 East 14th Place, Los Angeles; McGillan Sales Co., 1100 Hermosa Dr., S.E., Albuquerque; Harry F. Ream Sales Agency, 1216 Santa Fe Dr., Denver 4; J. W. Reynolds Co., 1481 S. Main St., Salt Lake City 15.

**MARATHON ELECTRIC MFG. CORP.,** West Riverside, Wausau, Wis.—Westco Pump Sales Co., 2315 E. 8th St., Los Angeles, and 85 Industrial St., San Francisco.

**MARATHON SPECIAL PRODUCTS CORP.,** Erie, Pa.—Stocking Distributors: Phillips & Edwards Elec. Corp., San Francisco, Santa Rosa, Oakland, Stockton, Redwood City; Incandescent Supply Co., San Jose, Redding, Fresno, Sacramento.

**MARCUS TRANSFORMER CO.,** 900 Leesville Ave., Rahway, New Jersey—Pacific Industries, 8255 Beverly Blvd., Los Angeles; E. B. Cook, 1063 Howard St., San Francisco; Norman R. Schultz Co., 4227 Airport Way, Seattle; R & M Sales, 2214 S. Clayton, Denver; Makinney (Hawaii), 810 South St., Honolulu, Hawaii.

**MARK & CO., CLAYTON, 1900 Dempster St., Evanston, Ill.—Electric Agencies, 506 Second Ave., Seattle; Hodges & Glomb, Inc., 921 Bryant St., San Francisco; Rutkin Electrical Sales Co., 744 Kohler St., Los Angeles; Kenneth B. Schumann Co., 1073 Galapago St., Denver.**

**MARKEL ELECTRIC PRODUCTS, INC., 145 Seneca St., Buffalo, N. Y.—O. W. Coombs, 1026 S. Olive St., Los Angeles 15; Wm. Benndorf, 221 E. Camelback Rd., Phoenix; Pacific Electric Sales Co., 140 S.E. 28th Ave., Portland; George Langevin, 430 27th Ave., San Mateo, Calif. (See ad, p. 87)**

**MARKS MFG. CO.,** 700 N. Carpenter St., Chicago 22, Ill.—Philip Schwartz, 1355 Market St., San Francisco.

**MARKSTONE MFG. CO.,** 1531 N. Kingsbury, Chicago 22, Ill.—Western Offices: Lewis C. Brady, Rt. 1, Box 453-B2, Arvada, Colo.; Jim Shirreffs Co., 3601 S. Broadway Place, Los Angeles 7.

**MARLEY COMPANY, THE,** 222 W. Gregory Blvd., Kansas City 14, Mo.—Branch Offices: 924 E. Main, Alhambra, Calif., and 420 Market St., San Francisco; Arthur Forsyth Co., 2800 15th Ave., West, Seattle; Pace-Turpin Co., 1855 Michigan Ave., Salt Lake City; J. E. Redmond Supply Co., 625 West Madison St., Phoenix; The Hank Thurstin Co., 475 Accma St., Denver.

**MARLUX CORPORATION,** Marlux Park, Billerica, Mass.—Jim Shirreffs Co., 3501 S. Broadway Pl., Los Angeles; Gregg Cloos, 977 Jackson St., Denver.

**MARMON-HERRINGTON COMPANY,** 1511 W. Washington St., Indianapolis, Ind.—Branch Office: 250 Grand Ave., Oakland, Calif. Sold through leading distributors.

**MARQUETTE MFG. CO., INC.,** 307 E. Hennepin Ave., Minneapolis, Minn.—Branches: 2501 Yates, Los Angeles; 909 King St., Oakland, and 2726 First Ave. So., Seattle.

**MARTIN STAMPING & STOVE CO.,** Huntsville, Ala.—O. B. Wilt Co., 934 Terminal Way, San Carlos, Calif.

**MARTINDALE ELECTRIC CO.,** 1375 Hird Ave., Cleveland, Ohio—Tri-State Supply Co., 554 Bryant St., San Francisco 7, 318 Occidental Ave., Seattle, and 544 S. San Pedro St., Los Angeles 13.

**MARVEL LAMP COMPANY,** 95 River St., Hoboken, N. J.—California Electric Supply Co., 12th and Folsom St., San Francisco; Vic Paul Co., 510 N. W. Hoyt St., Portland.

**MARVIN ELECTRIC MFG. CO.,** 648 Santa Fe Ave., Los Angeles 21, Calif.—L. S. Reed & Co., 1018 Lawrence St., Denver 4; Earl Stearns, Rt. 6, Box 945, Tacoma, Wash.; Beber-Cohen, 2166 Market St., San Francisco; Hugh Bargion, P. O. Box 3679, Honolulu 11; W. C. Osborn, P. O. Box 6506, Phoenix; Gerald Atherton-Ely, 635 Nautilus St., La Jolla, Calif.; Norman Ross, 4227 N. Monte Vista, Scottsdale, Ariz.

**MASON CO., L. E., 98 Business St., Boston 36, Mass.—G. M. Howard & Associates, 1301 6th St., San Francisco 7; John M. Fincke Co., 1848 N. Main St., Los Angeles 31; Pacific Electric Sales Co. Inc., 140 Southeast 28th St., Portland 15; Harry F. Ream Sales Agency, 1216 Santa Fe Dr., Denver 4. (See ad, pp. 4-7)**

**MASSEY, INC., A. H.,** 111 Third St., Derby, Conn.—Eckert Lloyd Co., 1225 6th St., San Francisco, 1950 Naomi Ave., Los Angeles.

**MAXSON CORP., THE W. L.,** Unimax Switch Div., Wallingford, Conn.—(See Unimax Switch Division.)

**MEARS ELECTRIC CO.,** Swan Island, Portland 17, Ore.—H. G. Lehl, 14280 S. Uplands Dr., Oswego, Ore.; Artwel Electric, Inc., 1485 Bayshore Blvd., San Francisco 24; Wally E. Starr, 10450 Pomering Road, Downey, Calif.

**MEARS ELECTRIC CONTROLS, INC.,** Swan Island, Portland—J. E. Shull & Son, 3601 Whittier Blvd., Los Angeles 23; Victor Miller, 4122 S. E. 10th, Portland; Artwel Electric, Inc. 1485 Bayshore Blvd., San Francisco 24.

**MECHANICAL PRODUCTS, INC.,** 1824 River St., Jackson, Mich.—1226 W. Olive Ave., Burbank, Calif.

**MEIER ELECTRIC AND MACHINE CO., INC.,** 3525 E. Washington St., Indianapolis, Ind.—The Sanderlin Co., 129 First Ave. West, Seattle, and 201 S. E. Washington, Portland; Murphy-Hain Co., 2125 Bay St., Los Angeles 21; Harvey M. Olmstead Co., 1031 Santa Fe Dr., Denver.

**MEMCO ENGINEERING & MFG. CO., INC.,** Commack, Long Island, New York—D. T. Elliott, 1229 Burlingame Ave., Burlingame, Calif.; Best Linemen's Supply Corp., 541 First Ave. South, Seattle.

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**MERCOID CORPORATION,** 4201 Belmont Ave., Chicago 41, Ill.—Jensen Instrument Co., 1919 W. Beverly Blvd., Los Angeles, and 429 Bryant St., San Francisco; J. M. Warner Co., 630 W. 48th, Denver; Stevens Sales Co., 1482 Major St., Salt Lake City; E. H. Langdon Co., 72 Vine St., Seattle; George S. Thomson Co., 611 N. Campbell St., El Paso; H. W. McKenzie & Co., 100 N. E. Holladay, Portland.

**MERCURY PRODUCTS CO.,** Boston Post Road, Guilford, Conn.—Pacific Electric Sales Co., 140 S.E. 28th Ave., Portland 14.

**METALTITE PRODUCTS INC.,** 6810 McCook Ave., Hammond, Ind.—Magnes Co., Inc., 44 Berry St., San Francisco; Tesman Agencies Co., 836 Traction Ave., Los Angeles; Wayne C. Wells Co., 6055 N. E. Glisan St., Portland.

**METALS & CONTROLS DIV., Texas Instruments, Inc.,** Forest St., Attleboro, Mass.—West Coast Engineering Facilities, Burbank, Calif. KLIXON Parts Distributors: L. L. Burror Co., 1126 8th Ave., Oakland 6; Arrowhead Elec. Corp., 5979 S. Figuero, Los Angeles 3; Center Elec. Eng., 1501 Center St., Tacoma and Seattle; C. E. Riggs, Inc., 317 N. W. Broadway, Portland 9; Western Electro Motive, 5544 West Pico, Los Angeles.

**METER DEVICES CO.,** 1001 Prospect Ave., S. W., Canton 6, Ohio—Western Representatives: Fred W. Carlson, 1201 Dexter Ave., Seattle 9; J. G. Corrin, 510 W. Sixth St., Los Angeles 14; Hamilton & Associates, 1236 Elati, Denver; Knopp, Inc., 4224 Holden St., Oakland, Calif.; Roy E. Coulson 8050 N. 3rd, Phoenix.

**METRON INSTRUMENT CO.,** 432 Lincoln St., Denver, Colo.—Component Sales Calif., Inc., 4626 Van Nuys Blvd., Sherman Oaks, Calif.

**MEYERS SAFETY SWITCH CO., INC., 423 Tehama St., San Francisco 3, Calif. (See ad, p. —)**

**MICA INSULATOR DIV. of Minnesota Mining & Mfg. Co.,** 797 Broadway, Schenectady 1, N. Y.—Minnesota Mining & Mfg. Co., 3663 1st Ave. S., Seattle; 6023 S. Garfield Ave., Los Angeles; 320 Shaw Road, So. San Francisco; 1639 Blake St., Denver; and 446 N. LaBrae Ave., Hollywood; Insulation & Wires, Inc., in following cities: 6415 E. Fleet, Los Angeles, 1112 N. W. 19th Ave., Portland, and 450 Alabama St., San Francisco.

**MICAMOLD ELECTRONICS MFG. CORP.,** 1087 Flushing Ave., Brooklyn, N. Y.—Eichorn & Melchior, 749 Bryant St., San Francisco; S. L. Spraggins Co., 914 S. Robertson Blvd., Beverly Hills, Calif.; Everett Gramer, 2100 E. Daverly St., Tucson.

**MICHIGAN OVEN CO.,** 415 Brainard St., Detroit, Mich.—Blair Engineering Co., 4100 Grape St., Denver; American Engineering & Mfg. Corp., 11836 San Pablo Ave., El Cerrito, Calif; A. W. Nash 2112 S. Atlantic Blvd. Los Angeles.

**MICRO BALANCING, INC.,** Herricks Rd. and Washington Pl., Garden City, N. Y.—Joslyn Pacific in following cities: 180 Potrero Ave., San Francisco 3, Los Angeles, Portland and Seattle; Hamilton Associates, 1236 Elati St., Denver.

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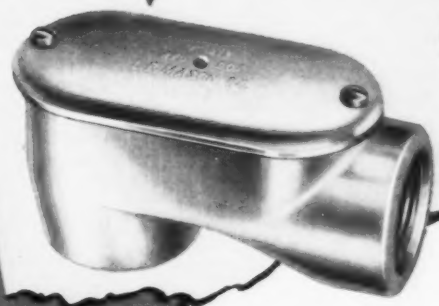

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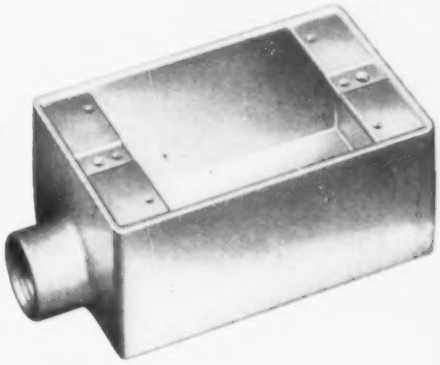

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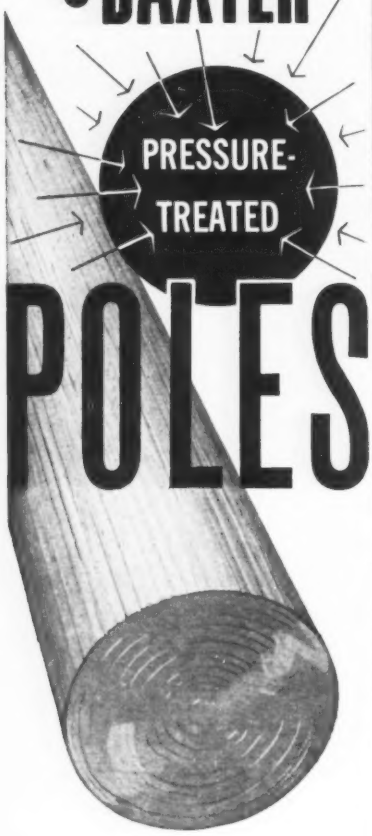


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**MICRO SWITCH,** a Division of Minneapolis-Honeywell Reg. Co., Freeport, Ill.—Branch Offices: 6620 Telegraph Road, Los Angeles 22, 2153 Moore St., San Diego, 2 Dorman Ave., San Francisco 24, 401 Pontius Ave. N., Seattle 9, 1600 W. 13th Ave. Denver 4, 4125 N. Seventh Ave., Phoenix. Stocking Distributors: Phillips & Edwards Elec. Corp., 265 Vermont St., San Francisco, Stockton, Redwood City; Western Electro Mechanical Co., 300 Broadway, Oakland.

**MIDGET HEATER & SPEC. CO.,** 2801 Pacific Ave., Tacoma, Wash.—Incandescent Supply, 647 Mission St., San Francisco; Valley Electric, 1831 18th St., Sacramento, Calif; North Coast Elec. Supply, 625 N. W. Everett, Portland; Eoff Electric, 509 N. W. 10th, Portland; Love Electric, 1914 Market, Tacoma; Palmer Electric, 307 Westlake N. Seattle; Columbia Electric Co., E. 3420 Ferry Ave., Spokane.

**MID-WEST CHANDELIER CO.,** 15th and Gentry, No. Kansas City, Mo.—Merwin Altfeld, 3038 Overland Ave., Los Angeles 34; Ernie Massman, Columbia Falls, Mont.; Fred J. Stone Co., 24 Manzanita Ave., San Francisco.

**MIDWEST ELECTRIC PRODUCTS, INC.,** 1515 N. Front St., Mankato, Minn.—Walter W. Corman, 7432 W. 80th St., Los Angeles 45, Calif.; Wayne C. Wells, 6055 N. E. Glisan, Portland 13; G. M. Howard & Associates, 1301 6th St., San Francisco 7; Electric Locator & Supply, 8045 Bellamah Ave. N.E., Albuquerque, N. M.; R & M Sales Co., 2214 S. Clayton St., Denver 10.

**MILBANK MFG. CO.,** 1111 Virginia St., Kansas City, Mo.—Industrial Eng. & Equipment Corp., 2975 Wilshire Blvd., Los Angeles; Pacific Electric Sales Co., 140 S. E. 28th Ave., Portland.

**MILLER CO., THE,** 99 Center St., Meriden, Conn.—E. D. Heintze 810 Hoyt St., Denver 15; Stanley Sales Co., 1122 Folsom St., San Francisco; English & Associates, 4229 122nd Ave. S.E., Bellevue, Wash.; Evans Supply Co. Inc., 110 Social Hall Ave., Salt Lake City 11.

**MILLER ELECTRIC CO.,** 120 Main St., Pawtucket, R. I.—Ed B. Schack & Co., 2216 First Ave., Seattle; John Carder Jr. Co., 1624 First St. N. W., Albuquerque.

**MILLER ELECTRIC MFG. CO.,** 718 South Bounds St., Appleton, Wis.&—C. J. Hogan, 1224 S. Larimore Ave., West Covina, Calif.; R. E. Berry, 4851 Bates St., Denver; E. W. Connor, 4760 N. Harvard St., Portland.

**MILLER EQUIPMENT CO., INC.,** 13th and New Streets, Franklin, Pa.—J. E. Haseltine & Co., 115 S. W. 2nd Ave., Portland; E. D. Bullard Co., 2680 Bridgeway, Sausalito, Calif., and 6719 S. Figueroa St., Los Angeles 3; Safety & Supply Co. 115 Blanchard St., Seattle.

**MILLER TOOL & MFG. CO., INC., K.,** 8 Cass St., Springfield 4, Mass.—J. H. Kay, 10531 S. Julius Ave., Downey, Calif.

**MILLER TRANSFORMER MFG. CO.,** 4550 N. E. Alberta St., Portland, Ore.—Formerly Electran Co., Portland.

**MILWAUKEE CRANE DIV.,** Industrial Enterprises, Inc., 3275 E. Van Norman Ave., Cudahy, Wis.—Robert M. Taylor Co., 268 Market St., San Francisco.

**MILWAUKEE ELECTRIC TOOL CORP.,** 5316 W. State St., Milwaukee 8, Wis.—Branch: 2569 W. Olympic Blvd., Los Angeles, and 216 11th St., San Francisco, and 415 Cedar St., Seattle 1; Howard Jordan, 1007 Grand Ave., Phoenix; Ted Green, 8025 W. 9th Ave., Denver 15; R. R. Premo, 1605 S.W. Palestine St., Portland 19.

**MINARIK ELECTRIC CO.,** 224 E. 3rd St., Los Angeles 13.

**MINERALLAC ELECTRIC CO.,** 25 N. Peoria St., Chicago, Ill.—F. J. Airey Co., 1513 S. Mateo, Los Angeles; H. C. Guire Co., 715 S. York St., Denver 9; Wm. O. Proby & Associates, 1308 N.W. Everett, Portland 9, and 2915 13th Ave., S.W., Seattle; George R. Magnes Co. Inc., 44 Berry St., San Francisco.

**MINE SAFETY APPLIANCES CO.** (Brooks Div.), 201 N. Braddock Ave., Pittsburgh 8, Pa.—Branch Offices: 1255 Howard St., San Francisco; 115 W. 25th St., Los Angeles; 71 Columbia St., Seattle 4, and 257 Rio Grande St., Salt Lake City 1; Best Linemen's Supply, 541 First Ave. So., Seattle.

**MINNEAPOLIS ELECTRIC & CONSTRUCTION CO.,** 80 S. 12th St., Minneapolis 3, Minn.—General Electric Supply Co., Graybar Electric Co., and Western Electric Co. in all West Coast cities.

**MINNEAPOLIS-HONEYWELL REGULATOR CO., Industrial Div., Wayne and Windrim Aves., Philadelphia, Pa.—Branch Offices: 2 Dorman Ave., San Francisco 24; 6620 Telegraph Road, Los Angeles 22; 1600 W. 13th Ave., Denver 4, Colo.; 2280 S. Main St., Salt Lake City; 2502 Garfield Ave. S. E., Albuquerque; 2600 S. E. Belmont, Portland; 401 Pontius Ave. North, Seattle; 917 W. Mallon, Spokane; 4125 North Seventh Ave., Phoenix.**

**MINNEAPOLIS-HONEYWELL,** Heating Controls, 2753 4th Ave. So., Minneapolis, Minn.—Offices in all principal cities.

**MINNESOTA MINING & MFG. CO., 900 Bush Ave., St. Paul 6, Minn.—Branch Offices: M. D. Benson, Sales Mgr., 6023 S. Garfield, Los Angeles 22; F. A. Blankenbaker, Sales Manager, 320 Shaw Road, South San Francisco, and 3663 1st Ave. S., Seattle.**

**MINUTE MOUNT,** Philadelphia, Pa.—Norman Ross, 4227 N. Monte Vista, Scottsdale, Ariz.; Stearns Sales Co., Box 945, Rt. 6, Tacoma.

**MIROFLECTOR CO., INC.,** 40 Bayview Ave., Inwood, L. I., N. Y.—Fred D. Benz, 520 4th, San Francisco; Dick English, 4229 122nd Ave. S.E., Bellevue, Wash.; Gruen Lighting, 8336 W. 3rd St., Los Angeles 48.

**MISENER MFG. CO., INC.,** 202 Walton St., Syracuse, N. Y.—Claude Michael Agency, 703 W. Ivy St., Glendale 4, Calif.; F. R. Eisner, 842 S. York St., Denver.

**MITCHELL INDUSTRIES, INC.,** Box 17, Mineral Wells, Texas—R. E. Osborne, 1757 Garfield, So. Pasadena, Calif.; Gordon Moss, P. O. Box 428, Greeley, Colo.

**MOBILIFT CORP.,** 835 Southeast Main St., Portland 14, Ore.—G. A. Belford, 2730 San Pablo Ave., Oakland, Calif.

**MOBILE AERIAL TOWERS,** 1730 N. Harrison, Ft. Wayne, Ind.—Jacobs-Kerr and Co., 1930 31st St., Denver; American Equip. & Body Co., 1461 E. Washington Blvd., Los Angeles 21; Western Truck Equip., 3101 N. 29th Ave., Phoenix; Utility Body Co., 1530 Wood St., Oakland, Calif.

**MODERNHEAT CABLE CORP.,** 2353 Ft. Henry Drive, Kingsport, Tenn.—Vic Paul Co., 510 N. W. Hoyt St., Portland; Larry Duncan, 1901 E. Montecito Ave., Phoenix.

**MODERN SUPPLIERS,** 1090 Leggett Ave., N. Y. City 59, N. Y.—Ball & Block, 3039 E. 12th St., Los Angeles.

**MODINE MFG. CO.,** 1300 DeKoven Ave., Racine, Wis.—Branch and factory, Box 830, Whittier, Calif. Distributor: Norman Brown Co., 765 Minna St., San Francisco.

**MOE LIGHT DIV., Thomas Industries, Inc., 410 S. Third St., Louisville, Ky.—South Pacific Division: A. O. Grotenhuis, Sales Manager, 6423 E. Washington Blvd., Los Angeles 22; Jerry D. Long, 615 Jasmine Ave., Corona del Mar, Calif.; J. D. Barton, 16502 Lawnwood St., La Puente, Calif.; Rollo D. Hittle, 16408 Septo St., Sepulveda, Calif.; R. W. Huizinga, 5142 Caywood, San Diego; R. R. Jones, 3745 Mayfair Dr., Pasadena; W. T. Tilley, 1421 Pontiac Ave., Denver; North Pacific Division: O. C. Westberg, Sales Manager, 1529 Rollins Road, Burlingame, Calif.; D. Watson, 4719 Pasadena, Sacramento, Calif.; Baxter Sharp, 1068 Cynthia Lane, San Jose; H. R. Huber, 1420 W. Lake Sammanish Parkway, N.E., Bellevue, Wash.; L. M. Slusser, 318 Dooly Bldg., Salt Lake City.**

**MOFFETT ENGINEERING CO.,** 579 Cleveland Ave., Albany, Calif.—Engineered Process Equip. Co., 774 E. Green St., Pasadena, Calif.

**MOISTURE REGISTER CO.,** 1510 W. Chestnut St., Alhambra, Calif.—James L. Kearns Co., 6055 N. E. Glisan, Portland; C. H. Spencer & Co., 210 W. 33rd South St., Salt Lake City; E. S. Browning Co., 1515 3rd St., San Francisco, and 2321 Yates St., Los Angeles.

**MOLONEY ELECTRIC COMPANY, 5390 Bircher Blvd., St. Louis 20, Mo.—Western Representatives: Garland-Affolter Engineering Corp. (in following cities), 2603 Western Ave., Seattle 1; 1233 N. W. 12th Ave., Portland; Subway Terminal Bldg., Los Angeles; 519 Holbrook Bldg., 58 Sutter St., San Francisco 4; Hamilton Associates, 1236 Elati St., Denver 2; Riter Eng. Corp., 1369 Major St., Salt Lake City 15, Utah; Ensign & Kempson, 4428 E. Washington, Phoenix; A. W. Graham, P. O. Box 69, Clovis, N. M.; R. E. McDonough, 829 Maryland Ave., Butte; Stubbs Elec. Co., 33 N. W. Park Ave., Portland.** **(See ad, p. 49)**

**MONARCH ELECTRIC CORP.,** 118 E. First St., Jamestown, N. Y.—Keeler-White Co., 615 7th St., San Francisco; Hayjax Co., 436 Colyton St., Los Angeles; Keeler-White, Inc., 1041 6th Ave. So., Seattle; Keeler-White, Portland, 322 N. W. Fourth Ave., Portland; A. J. Nelson Co., P. O. Box 5502, Denver 17.

**MONGERSON'S ELECTRICAL MACHINE WORKS, INC.,** 220 E. 19th St., Bakersfield, Calif.—John Allen Ware & Co., 737 W. Buchanan, Phoenix; H. S. Walling, 253 Fulton, Fresno, Calif.; Electrical Contractors Supply, 545 W. 20th, Idaho Falls; Piper Associates, 107 West 5th St. Vancouver, Wash.; Emerald Irrigation, 101 Hwy. & Spence Rd., Salinas, Calif.; Van Slyke Elec., San Bernardino, Calif.

**MONITOR CONTROLLER CO.,** 99 Grove St., Rockland, Mass.—E. B. Cook Co., 1063 Howard St., San Francisco; National Parts Distr. Co., Inc., 451 N. Vermont Ave., Los Angeles 4, and 1075 Galapago St., Denver 4.

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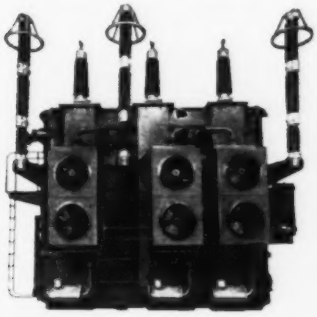

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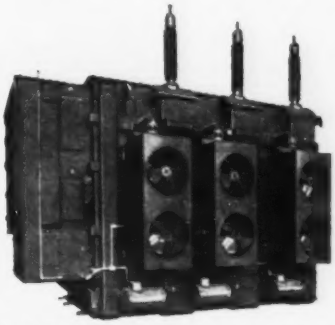

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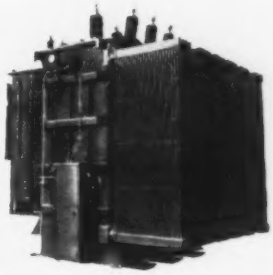
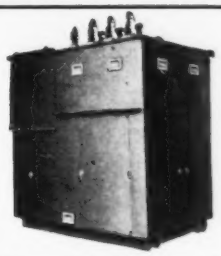
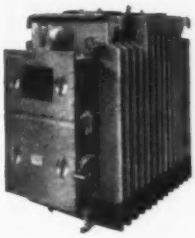


Regulating Transformers and Feeder Voltage Regulators to provide constant line voltage for all transmission and feeder lines.

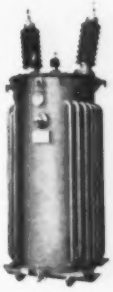


Integral Primary Unit Substations. A package unit for outdoor installations, incorporating an incoming high voltage section, a secondary circuit breaker and a Power Transformer with Automatic Load Tap Changing Equipment.

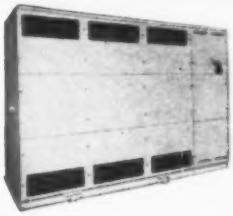


Subway and Vault Type Network Transformers either oil or askarel immersed.

Substation Transformers

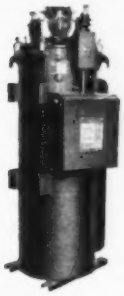


Oil or Askarel-Immersed Secondary Unit Substation Transformers.

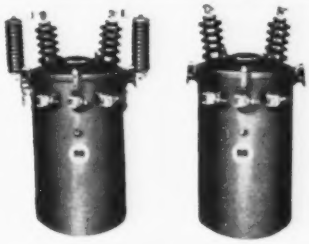


Ventilated Dry-Type Secondary Unit Substation Transformers (Group 2 Insulation). Suitable for indoor installations.

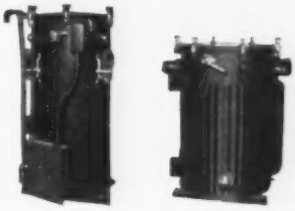
Nitrogen-Sealed Dry-Type Secondary Unit Substation Transformers (Group 3 Insulation). Suitable for outdoor or indoor installation.



Single-Phase Pole-Type Step Voltage Regulators. Self-contained and completely automatic. Equipped with Moloney's "Select-Amp" allowing the range of voltage regulation to be adjusted from a maximum of plus or minus 10% to a minimum of plus or minus 5%.



Conventional and CSP Single Phase or Three Phase Pole Type Distribution Transformers.



Constant Current Transformers are available in both Conventional and Packaged Unit Types.

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Sales Offices In All Principal Cities • Factories at St. Louis 20, Mo., and Toronto, Ont., Canada

**MYERS Scru-Tite HUBS**
**FIT STANDARD KNOCKOUTS**

**Positive Seal without Welding**

**Fully tested and approved, waterproof, dust-proof, lifetime "O-RING" seal. Unique locking serrations assure full metal-to-metal contact; vibration-proof, service.**

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**RAymond 3-3627**

**Available throughout the United States from qualified distributors**

**MONITOR EQUIPMENT CORP.**, 640 West 249th St., New York 71, N. Y.—Fred Kassler, 2300 Castillian Ave., Hollywood 28, Calif.; Conklin-Tamberg, Inc., 1355 Market St., San Francisco; George H. Williams Co., 5600 Tuxedo Terrace, Los Angeles 28; Dasco Wholesale Distrs., 4620 Leary Way, Seattle; Electrical Equipment Co. of Ariz., First Ave. at Madison, Phoenix; A. H. Jaeger Co., 1906 Bigelow Ave., Seattle.

**MONTANA POLE & TREATING PLANT, INC.**, West Greenwood St., Butte, Mont.

**MONTECELLO SPECIALTIES CO.**, 9 Great Jones St., New York City — James Mundstock, 417 Market St., San Francisco; W. A. McGuire, 164 S. Central Ave., Los Angeles; Collins H. Gillette, 2501 Crestmont Pl., Seattle.

**MONTGOMERY MFG. CO.**, 202 S. Main St., Owensville, Ind.—F. A. Thomas Co., 47 Second St., San Francisco; The Clock Shop, 144 E. 14th St., Oakland; Time Clock Sales, 803 W. 11th St., both Los Angeles.

**MORGANITE, INC.**, 33-02 48th Ave., Long Island City 1, N. Y.—C. B. Knispel, 1115 West 16th St., Santa Ana, Calif.; M. R. Johnson, 1415 W. Court, Novato, Calif.

**MORRISON-PELSUE, 2001 S. Bannock St., Denver 23, Colo.—A. F. Johnson, 10430 Burbank, North Hollywood; Golsan Co., 1421 S. Flower St., Los Angeles; Brenton Equipment Co., 374 Brannan St., San Francisco; Tinling & Powell, E. 706 Sprague Ave., Spokane; W. H. Pingree Co., 461 E. 2nd South, Salt Lake City.**

**MORSE CO., FRANK W.**, 354 Congress St., Boston 10, Mass.—E. B. Cook, 1063 Howard St., San Francisco 3.

**MOSSMAN, INC., DONALD P.**, P. O. Box 265, Brewster, N. Y.—Dwight Mossman Associates, 776 W. Front St., Covina, Calif.; C. W. Mauldin Co., 441 W. California Ave., Palo Alto, Calif.

**MOTORCRAFT**, Box 470, Muncie, Indiana—Tri-State Supply Company, 544 So. San Pedro, Los Angeles; 554 Bryant St., San Francisco, and 318 Occidental Ave., Seattle; Electrical Specialty Co., 158 Eleventh St., San Francisco 3; 418 E. Third, Los Angeles 13; 2406 First Ave. So., Seattle 1, and 1015 21st, Denver 2; H. G. Rising, Inc., 151 N. Vermont Ave., Los Angeles 5.

**MOTOR GENERATOR CORP.**, West Water St., Troy, Ohio—Frank T. Butler, 722 Fern Glen, La Jolla, Calif.; Fred Pelletier Co., 1014 Venice Blvd., Los Angeles; McCormick-Morgan, 324 5th St., San Francisco; Toncray Equip. Co., 1732 Blake St., Denver; Northern Equipment Co., 208 S. W. Stark St., Portland; Automotive Elec. Co., East 125 Mission Ave., Spokane; Potter-Bowman Co., 213 N. 1st Ave., Phoenix.

**MOTOROLA COMMUNICATIONS & ELECTRONICS, INC.**, 4501 Augusta Blvd., Chicago, Ill.—Branch Office: Donald F. Brickley, Div. Sales Mgr., 1616 Rollins Rd., Burlingame, Calif., 6555 Sunset Blvd., Hollywood 2, 3833 N. E. Union Ave., Portland, and 467 E. Third So., Salt Lake City; Wallace & Wallace, 1206 Maple, Los Angeles.

**MUELLER ELECTRIC CO.**, 1583 E. 31st St., Cleveland 14, Ohio—Harry E. Marshall, 104 Olive St., San Francisco 9.

**MULLENBACH**, Div. of Electric Machy. Mfg. Co., 2100 E. 27th St., Los Angeles 58, Calif.—Fred G. Guthrie, 420 Market St., San Francisco 11; Mark G. Mueller, 1644 Blake St., Denver 2; W. C. Osborn, 7116 North 13th St., Phoenix; J. A. Tudor & Associates, Inc., 1004 S. E. Belmont, Portland 14, and 2605 Western Ave., Seattle 1.

**MULLITE WORKS**, Refractories Div., H. K. Porter Co., Inc., 95 Canal St., Shelton 1, Conn.—Branch Offices: 2947 E. 44th St., Los Angeles; 391 Sutter St., San Francisco.

**MULT-A-FRAME**, Div. Ainsworth Mfg. Corp., 1471 E. Atwater St., Detroit 7, Mich.—Branch in Los Angeles, 7333 Coldwater Canyon, N. Hollywood, Calif. Distributors: Enterprise Commercial Co., 1268 Folsom St., San Francisco; Bryan W. Burtch Co., 2915 First Ave. S., Seattle; Peterson Co., 4949 Colorado Blvd., Denver.

**MULTI-AMP CORPORATION**, 465 Lehigh Ave., Union, N. J.—J. A. Tudor & Associates, 1004 S. E. Belmont St., Portland 14, and 2605 Western Ave., Seattle 1; Slaybaugh-Thompson Co., 100 W. 13th Ave., Denver.

**MULTI ELECTRIC MFG. CO., INC.**, 4225 W. Lake St., Chicago 24, Ill.—C. B. Gratiot Co., 1282 Folsom St., San Francisco.

**MURLIN MFG. CO.**, 200 S. Ambler St., Quakertown, Pa.—Allied Industries, 412 Seaton St., Los Angeles; E. A. Will, 534 First Ave. S., Seattle; Dahl-Beck Electric Co., 580 Howard St., San Francisco.

**MURPHY & CO., INC., JAMES A.**, Hamilton, Ohio—Valley Engineers, 416 N. Glendale Ave., Glendale, Calif.

**MURRAY MANUFACTURING CORP., 1250 Atlantic Ave., Brooklyn, N. Y.—Western Regional Office: 6115 Selma Ave., Los Angeles; Gaer Sales Co., 1223 Quivas St., Denver; Northwest Sales Co., 1603 N. W. Johnson St., Portland, 1804 Bush Pl., Seattle 44, and 11616 E. 16th Ave., Spokane 64; Ernest F. Hauch Co., 1282 Folsom St., San Francisco; Ralph L. Mooney, 411 S. First St., Phoenix.**

**MU SWITCH DIV.**, Acro Mfg. Co., 2040 E. Main St., Columbus, Ohio—(refer to Acro Division)

**MYERS ELEC. PRODUCTS, INC., 3019 Vail Ave., Los Angeles 22, Calif.—G. M. Howard & Assoc., 1301 6th St., San Francisco; A. J. Nelson Co., 710 E. Louisiana St., Denver; Ralph L. Mooney, 411 S. First St., Phoenix. (See ad, p. 50)**

**THE NARDA ULTRASONICS CORP., 625 Main St., Westbury, N. Y. — Regional Sales Office: E. Fioramonti, Mgr., 3259 Wilshire Blvd., Los Angeles 5. Distributors: Pacific Radionics, 2586 E. 67th St., Long Beach, and 485 Ramona, Rm. 9, Palo Alto, Calif.; Gene French Co., Phoenix, Ariz.; Electronic Lab Service, 750 Cherry St., Denver; Ray Johnston Co., 11009 Evanston Ave., Seattle 33; Industrial Eng. & Equipment Co., 2975 Wilshire Blvd., Los Angeles; Ralph B. Lundy, 1063 Howard St., San Francisco; L. B. Putnam, 1217 California St., Denver. (See ad, inside back cover)**

**NARRAGANSETT WIRE CO.**, 541 Pawtucket Ave., Pawtucket, R. I. — Branch: 645 N. Cypress St., Orange, Calif.; W. B. Imholt Co., 275 Brannan St., San Francisco; Wm. O. Proby & Associates, Inc., 2915 13th S. W., Seattle 24, and 1308 N. W. Everett, Portland 9.

**NASH ENGINEERING**, South Norwalk, Conn.—S. C. Pardee, 681 Market St., San Francisco.

**NATALE MACHINE & TOOL CO.**, 337 Highway No. 17, Carlstadt, N. J.—L. N. Curtis & Sons, 5808 College Ave., Oakland; Star Machinery Co., 801 S. Front, Portland; Midwest Service & Supply Co., 1333 S. Main St., Salt Lake City; Graybar Electric, Sacramento, and San Francisco, and Boise, Idaho; Western Fire Equipment Co., 69 Main St., San Francisco; Ralph C. Meislahn, 1632 17th St., Denver.

**NATIONAL ACME CO.**, Electrical Mfg. Div., 12819 Coit Road, Cleveland, Ohio — Preston Machinery Co., 6703 Santa Fe, Huntington Park, Calif.; T. F. Pimper, Machinery, 458 Brannan St., San Francisco.

**NATIONAL CARBON CO.**, Div. of Union Carbide Corp., 30 E. 42nd St., New York City 17—Branch Offices: Div. Mgrs.: H. D. Van Artsdale, Western Div. Mgr., Brush Railroad Products, M. M. Rand, Electrode Prod., 22 Battery St., San Francisco; Jack Pruzen Co., 109 Jackson, Seattle.

**NATIONAL ELECTRIC COIL CO.**, 800 King Ave., Columbus, Ohio—D. W. Hatfield, 1510 Harvard Ave., Salt Lake City 5; G. H. Bragg, 94 Ramona Ave., Piedmont, Calif.; T. K. Hawkins, 20 E. Floral Ave., Arcadia, Calif.; R. L. Vivian, 2106 102nd Ave. Bellevue, Wash.

**NATIONAL ELECTRIC DIVISION**, H. K. Porter Co. Inc., H. K. Porter Bldg., Pittsburgh, Pa.—Bennett & Associates Sales Representatives in following cities: 6400 Corvette St., Los Angeles 22; 400 Potrero Ave., San Francisco 10; 455 W. Wesley Ave., Denver 23; 19 W. South Temple, Salt Lake City; 3330 E. Georgia, Phoenix.

**NATIONAL ELECTRIC WELDING MACHINE CO. INC.**, 1846 N. Trumbull, Bay City, Mich.—Geo. Tivy, 2230 W. 11th St., Los Angeles 6.

**NATIONAL ENGINEERING & MFG. CO.**, 217 E. 16th St., Sedalia, Mo.—Henry Waxman & Associates, 6511 Orion Ave., Van Nuys, Calif.; Coop & Merritt, P. O. Box 2601, Denver, and 2426 N. E. 47th St., Portland 13.

**NATIONAL POLE & TREATING**, Div., Minnesota & Ontario Paper Co., 500 Baker Arcade Bldg., Minneapolis 2, Minn.—Branch Office in Spokane, Wash.

**NATIONAL RESEARCH CORP.**, 160 Charlemont St. Newton Highlands, Mass.—Carl Herrmann, P. O. Box 1179, Palo Alto, Calif.

**NATIONAL SUPPLY CO., Tubular Division, 2 Gateway Center, Pittsburgh, Pa.—Branch Office: 1247 Russ Bldg., San Francisco; Murphy-Hain Co., 2133 Bay St., Los Angeles, J. H. Stumph, 1000 4th Ave., Seattle; Allen B. Carpenter, 1314 Wazee St., Denver; David M. Merrill, 192 N. First East, Farmington, Utah.**

**NATIONAL SUPPLY, Tubular Div., (Formerly Howard-duct) Melrose Park, Ill.—Allen & Arthur, 420 Market St., San Francisco; Wm. O. Proby Assoc., 2915 13th S.W., Seattle; and 1308 N.W. Everett, Portland; Murphy-Hain, 2133 Bay St., Los Angeles 21.**

**NATIONAL TELEPHONE SUPPLY CO.**, 5100 Superior Ave., Cleveland 3, Ohio—Western District Manager, John E. Winchester, 10345 Deveron Drive, Whittier, Calif.; Joslyn Pacific Co., 5100 District Blvd., Los Angeles, 180 Potrero Ave., San Francisco; Seattle, Portland and Salt Lake City; Graybar Elec. Co. all cities.

**NATIONAL VULCANIZED FIBRE CO.**, P. O. Box 311, Wilmington, Delaware — Branch Offices: 2216 S. Garfield Ave., Los Angeles; 535 Middlefield Rd., Palo Alto; 1253 Pearl St., Denver; 4001 Whitman Ave., Seattle.

**NATVAR CORP.**, 211 Randolph Ave., Woodbridge, N. J.—Electrical Specialty Co., 158 Eleventh St., San Francisco; 2406 1st Ave. S. Seattle; 212 N. W. 14th Ave., Portland; 2820 E. 12th St., Los Angeles; 2026 Arapahoe St., Denver; 2588 Simpson Ave., Salt Lake City, and P. O. Box 232, Phoenix.

**NEBRASKA BOILER & SUPPLY CO.**, 235 N. 9th St., Lincoln, Neb.—Johnson Engineering Co., 534 20th St., Oakland 12, Calif.; Champion Specialty Co., 4808 S. Broadway, Englewood; Power Engineering Co., 1806 S. State St., Salt Lake City; California Pellet Mill Co., 1800 Folsom, San Francisco.

**NEDCO**, 27 Jones Rd., Waltham, Mass.—Charles E. Johnson Co., 4932 Rosewood Ave., Los Angeles; Stephen G. Smith, 1438 N. W. Hoyt St., Portland 9.

**NELSON, HERMAN, DIVISION**—(See American Air Filter Co.)

**NELSON ELECTRIC MFG. CO.**, P. O. Box 5385, Tulsa, Okla.—Oliver B. Lyman, 55 New Montgomery St., San Francisco; Randolph Eng. Corp., 1029 N. 1st St., Phoenix, and Box 2097, El Monte, Calif.; Fred W. Carlson, 1201 Dexter Ave., Seattle 1, 935 N.W. 12th, Portland; Peterson Co., 4949 Colorado Blvd., Denver; Gates Co., 200 S. Main St., Salt Lake City.

**NELSON STUD WELDING**, Div. of Gregory Industries, Inc., Lorain, Ohio—Gregory Industries, Inc., 440 Peralta Ave., San Leandro, Calif., and 5463 Alhambra Ave., Los Angeles, and 1224 Walnut St., Denver; Industrial Supply Co., 121 Social Hall, Salt Lake City; Consolidated Welding Supply, 747 Grand Ave., Phoenix.

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**NEMCO ELECTRIC CO.**, 210 Second Ave., Seattle 4, Wash.—Seattle Lighting Fixture Co., 222 Second Ave., Seattle 4; Baker-Barkon Co., 1335 S. W. Morrison St., Portland 5; S. F. Lighting & Supply Co., 1147 Howard St., San Francisco; Wagner-Woodruff Co., 830 So. Olive St., Los Angeles 14; Vancouver Lighting Co., Ltd., 124 E. Hastings St., Vancouver 4, B. C.; Guy de Leuze Co., 1923 Bryant St., San Francisco.

**NEO-RAY PRODUCTS, INC.**, 315 E. 22nd St., New York 10, N. Y.—Metal Specialties Co., 1726 Montana St., El Paso, and P. O. Box 6032, Station B, Albuquerque; Neil Winikoff, 7544 44th N. E., Seattle; Longstreet-Smith Assoc., 1013 15th St., Denver; A. I. Biorge, 243 E. 3rd St. So., Salt Lake City.

**NEPO**, 4230 N. Sayre, Chicago, Ill.—Gregg Cloos, 977 Jackson Blvd., Denver; Rangely Distributing, 11166 Santa Monica Blvd., Los Angeles; Northwest Sales Co., 1603 N. W. Johnson St., Portland; Pacific Utilities Supply Co., 605 Third St., San Francisco.

**NEPTUNE-POWER PLUS PRODUCTS CO.**, 2228 Bellevue, Detroit 7, Mich.—Westinghouse Electric Supply, Graybar Electric Co., Inc., and General Electric Supply Corp., in all principal cities.

**NESBITT, INC., JOHN J.**, State Road & Rhawn St., Philadelphia Pa.—John Morley & Assoc., 1001 Tennessee St., San Francisco 7; Gil Moore & Co., 310 N. Normandie, Los Angeles 4; Howard A. Weller Co., 2925 N. E. Glisan, Portland; W. A. Crowder, 1800 Taylor Ave., Seattle 9.

**NEW ENGLAND CARBIDE TOOL CO., INC.**, 55 Commercial St., Medford 55, Mass.—H. H. Hobelmann & Co., Inc., 225 Kansas St., San Francisco; Bruce P. Rutherford, Inc., 1954 First Ave. S., Seattle, and 122 First Ave. S. W., Portland; Dillon Stevens & Co., 1348 Venice Blvd., Los Angeles; C. C. Warner, 3063 Albion St., Denver.

**NEW ENGLAND CABLE CO.**, Div. General Cable Corp.—James Fletcher, Vice Pres., 185 Industrial St., San Francisco.

**NEW ENGLAND MICA CO., INC.**, 66 Woerd Ave., Waltham, Mass.—Insulation & Wires, Inc., 1077 Howard St., San Francisco; 6415 E. Fleet St., Los Angeles 22, and 525 N. Tillamook St., Portland; Tri-State Supply Corp., San Francisco, Los Angeles, Seattle.

**NEW JERSEY WOOD FINISHING CO.**, Amboy Ave., Woodbridge, N. J.—C. D. Ma Moree 2433 Birkdale St., Los Angeles, and 2221 4th St., Berkeley 2; C. E. Riggs, Inc., 422 N. W. 8th, Portland 9, and 408 Occidental, Seattle 4.

**NEW YORK SOLDER CO., INC.**, 684 E. 133rd St., New York City—R. B. Haskell, 200 Davis St., San Francisco; H. B. Deming, 1423 S. Hill St., Los Angeles.

**NAGARA TRANSFORMER CORP.**, 1747 Dale Road, Buffalo, N. Y.—R. W. Peterson, 3870 E. Colorado Blvd., Pasadena, Calif.; Ray L. Martin & Sons, 727 N.E. 25th St., Portland.

**NICAD DIV. GOULD-NATIONAL BATTERIES, INC.**, 172 Pleasant St., Easthampton, Mass.—T. A. Ford Co., Inc., 320 S. San Marino Ave., San Gabriel, Calif.; K. M. Ryals Co., 461 Market St., San Francisco; Andrew L. Polich, Inc., 734 N. W. Glisan St., Portland 9; Automatic Control & Equipment Co. 5750 Pecos St., Denver 11; Monitor Distributors, Inc., 604 Utah Ave., Butte, Mont.

**NIFE, INC.**, Copiague, L. I., N. Y.—Fred W. Carlson Co., 1201 Dexter Ave., Seattle, and 935 N. W. 12th, Portland; Eddy Electric Products, Inc., P. O. Box 1428, Phoenix; Gordon H. Proffitt, World Trade Center, San Francisco 5; Moralee W. Silver, 1771 E. 9th South, Salt Lake City 5; Warren C. Webb, 1709 W. 8th St., Los Angeles 17; Peterson Co., 4949 Colorado Blvd., Denver 16.

**NIKOH TUBE CO.**, 5000 S. Whipple St., Chicago, Ill. —Agencies Co., 836 Traction Ave., Los Angeles.

**NITROSE CO., INC.**, 1st National Bank Bldg., Peoria, Ill.—T. T. Watson Co., 1226 Bailey St., Seattle; Waldron, Duffy & Smith, Inc., 941 - 6th St., San Francisco; Metropolitan Supply Co., 1153 S. Greenwood, Montebello, Calif.

**NOBLE CO.**, 1860 7th St., Oakland, Calif.

**NORMA-HOFFMAN BEARINGS CORP.**, Stanford, Conn.—Walker Div., T. A. Ford, 320 S. San Marino Ave., San Gabriel, Calif.; Harold R. Swanton, Inc., 498 Brannan St., San Francisco, 2739 4th Ave. S., Seattle, 1706 S. Grand Ave., Los Angeles.

**NORTH AMERICAN ELECTRIC LAMP CO.**, 1520 North 13th St. St. Louis, Mo.—F. J. Airey Co., 1513 S. Mateo St., Los Angeles 21.


**W. E. KIRK CO.**

*Engineers and Representatives*

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**LOS ANGELES 13, CALIF.**
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Substation & Switching Equip.

**STANDARD TRANSFORMER COMPANY**
Transformers—Unit Substations



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**LIGHTING & MFG. COMPANY**

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**P.O. Box 5162,**
**Terminal Annex**
**Denver, Colorado**

**Gerald Joseph**
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**T. Y. Emmett**
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**Portland 14, Oregon**

**Bruce-Emmett Co.**
**1016 1st Ave. South**
**Seattle, Washington**
**5923 Drumheller**
**Spokane, Washington**

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**NORTH ELECTRIC CO.**, 553 S. Market St., Galion, Ohio—H. E. Peters, 105 Roundup Rd., Glendora, Calif.; R. E. Butts, 643 S. Pasadena Ave., Azusa, Calif.; Inland Associates, 1480 Hoyt St., Lakewood, Colo.; C & H Supply Co., King County Airport, Boeing Field, Seattle 8.

**NORTHEASTERN ENGINEERING, INC.**, 25 S. Bedford St., Manchester, N. H.—J. K. Dooley Co., 3215 Western Ave., Seattle 1; McLoud & Raymond Co., 5403 E. Evans Ave., Denver 22; J. T. Hill Co., 420 S. Pine St., San Gabriel, Calif., 1864 Bacon St., San Diego; 1682 Laurel St., San Carlos, Calif.; and 318 West State Ave., Phoenix, Ariz.

**NORTHERN LIGHT CO.**, 1661 N. Water St., Milwaukee, Wis.—E. T. Vonier Co., 1160 Elati St., Denver 3.

**NORTHWESTERN ELECTRIC CO.**, 1750 N. Springfield, Chicago, Ill.—**Representative:** Golsan Co., 1421 S. Flower St., Los Angeles 15; **Distributors:** Smallcomb Electric Company, 1120 South Main St., Los Angeles 15; McCrea Engineering Supply Co., 285 Seventh St., San Francisco 3.

**NORWOOD CONTROLS** — Detroit Controls Corp. 934 Washington St., Norwood, Mass. — J. T. Hill Co., 420 S. Pine St., San Gabriel, Calif., and 1864 Bacon St., San Diego; Landes, Zachary & Peterson Bacon St., San Diego, and 1682 Laurel, San Carlos, Calif.; Landes, Zachary & Peterson Co., 275 Kalamath St., Denver 23, and 1682 Laurel St., San Carlos, Calif.; 1900 Mills St., El Paso, and 153½ West 2nd St., Salt Lake City.

**NOTTINGHAM & CO. INC., J. B.**, 441 Lexington Ave., New York City, N. Y.—Henry Viets, 1965 Pacific Ave., Long Beach, Calif.

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**NU-ART LIGHTING & MFG. CO., 235 E. 5th S., Salt Lake City, Utah—Bruce-Emmett Co., 830 S.E. Alder St., Portland, 5923 Drumheller, Spokane, 1016 1st Ave. So., Seattle 4; Joseph E. Shull & Son, 3601 Whittier Blvd., Los Angeles 23; Stanley Sales Corp., 1122 Folsom St., San Francisco; Ralph Meislahn, 1632 17th St., Denver 2; Gerald Joseph, 1220 Central Ave., S.E., Albuquerque. Distributors in all principal cities. (See ad, p. 51)**

**NULCO MFG. CO.**, 335 Barton St., Pawtucket, R. I. —M. A. Wagner, 1075 Broadway, Belmont, Calif.; Nulco Mfg. Corp., 3038 Overland Ave., Los Angeles.

**NU-LITE CORP.**, 41 S. 6th St., Newark, N. J.—Branch: R. C. Harris, 1133 Solano Ave., Albany, Calif.

**NU-LITE FLUORESCENT MFG. CO., INC.**, 1714 S. Grand Ave., Los Angeles 15, Calif.

**NUTONE, INC.**, 237 West 30th St., Los Angeles 7, Calif.—Branch Offices: 409 9ht Ave. No., Seattle 7; Joe Scharfen, 308 11th St., San Francisco 3; J. R. Christensen, 247 E. 5th So., Salt Lake Citq 2; John Pineau, 5236 Appellate Court, Carmichael, Calif.; L. C. Brady, 10850 W. 73rd Place, Arvada, Colo.; J. T. Cruickshank, 541 W. Claremont Ave., Phoenix; R. L. Winter, 7906 Cinnabar Dr., La Mesa, Calif.

**NYE TOOL CO.**, 4120 W. Fullerton Ave., Chicago 39, Ill.—Branch: 1316 Kenwood Ave., Anaheim, Calif. Distributors in all principal cities: Graybar Electric, Crane Co., all West Coast branches.

**NYLON MOLDING CORP.**, 141 South Ave., Garwood, N. J.—Calrepco, 1417 Georgia St., Los Angeles.

**OHIO BRASS COMPANY, Mansfield, Ohio—Branch Offices: A. M. Bohnert, Mgr., 1503 Hobart Bldg., San Francisco; V. L. Crabb, 930 Subway Terminal Bldg., Los Angeles; C. R. Kingsbury, 1606 Northern Life Tower, Seattle; J. S. Veatch, 2390 S. Jackson, Denver 10. Agent for Dist. Materials: Graybar Electric Co., Inc., all cities.**

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1004 East Fourth Street
Los Angeles 13, California
Mr. Wm. H. H. Reeder, Dist. Mgr.
1444 Oaklawn Rd.
Arcadia, Calif.
PORTLAND
Shaffer & Nelson
1001 S. E. Water Ave.
Portland 14, Oregon
SALT LAKE CITY
Shaffer & Nelson
Room 201
1415 S. Main Street
Salt Lake City 15, Utah
SEATTLE
Shaffer & Nelson
312 Occidental Avenue
Seattle 4, Washington
SPOKANE
Shaffer & Nelson
West 1835 Broadway
Spokane, Washington

**PASS & SEYMOUR**
**INCORPORATED**
**Syracuse 9, New York**

**OHIO CARBON CO.**, 12508 Berea Road, Cleveland 11, Ohio—Representatives: C. F. Bowers, 544 S. San Pedro St., Los Angeles 13. Distributors: Tri-State Supply Corp. in following cities: 544 S. San Pedro St., Los Angeles 13; 554 Bryant St., San Francisco 7, 322 Occidental Ave., Seattle 4; Hendrie & Bolthoff Co., 1635 17th St., Denver 17; Nixon-Kimmel, 167 S. Wall, Spokane; Kalispell Merc. Co., Kalispell, Mont.; J. Korber & Co., 200-224 N. Second St., Albuquerque.

**OHIO ELECTRIC MFG. CO.**, 5400 Lunham Rd., Maple Heights, Ohio—Electric Motor Engineers, 8255 Beverly Blvd., Los Angeles 48; F. E. Bennett Co., 426 N. W. 6th Ave., Portland 9.

**OHMITE MFG. CO.**, 3601 Howard St., Skokie, Ill.—Herb Becker Co., Inc., 1140 Crenshaw Blvd., Los Angeles 19; Belchamber & French, 1485 Bayshore Blvd., San Francisco 24; Shefler & Kahn Co., P. O. Box 1587, Phoenix; McLoud & Raymond Co., 5403 East Evans, Denver 22; Marsh Agencies, 2601 First Ave., Seattle 1.

**OKONITE COMPANY, 220 Canal St., Passaic, N. J.—Branch Offices: E. J. Danielson Reg. Mgr., West Coast Region, 427 W. 5th St., Los Angeles 13; 701 Phelps St., San Francisco 24; 830 Pittock Block, Portland; 1904 Third Ave., Seattle 1; J. F. Angle, 1935 South Main St., Salt Lake City.**

**OLIN MATHIESON CHEM. CORP.**, Elec'l Div., 275 Winchester Ave., New Haven 4, Conn.—R. L. Biersach, 2239 South Yates Ave., Los Angeles 22.

**OLIVER ELECTRICAL MANUFACTURING CO.**, 170 Angell St., Battle Creek, Mich., and 1001 Muriel St., Pittsburgh, Pa.—Matzinger-Johnson, 1329 Willow St., Los Angeles 13; Sales Engineers Co., 211 Wazee Market, Denver 4; Shaffer and Nelson, 312 Occidental Ave., Seattle 4.

**OLIVER IRON AND STEEL CORP.**, S. 10th and Muriel Sts., Pittsburgh, Pa.—Sales Engineers Co., 1440 11th St., Denver, and 135 So. 3rd East, Salt Lake City; Roy Peck Associates, 103 No. Santa Anita Ave., Arcadia Calif.; Shaffer and Nelson, 312 Occidental Ave., Seattle 4, N. 2205 Monroe St., Spokane, and 139 S. E. Taylor, Portland.

**OLSEN TESTING MACHINE CO., TINIUS**, 2100 Easton Rd., Willow Grove, Pa.—Pacific Scientific Co., 760 Harrison St., San Francisco. Branches in Seattle, Portland and Los Angeles.

**OLYMPIC INSTRUMENTS INCORPORATED, Vashon, Wash.—Ernst F. Hauch, 1282 Folsom St., San Francisco 3; National Wire & Cable Corp., 136 San Fernando Rd., Los Angeles 31. (See ad, p. —)**

**ONAN & SONS, INC., D. W.**, University Avenue S. E. and 25th, Minneapolis, Minn.—Factory Representatives: Frank Gernand, 1588 Edgewood Dr., Palo Alto, Calif.; Les Leland, 2800 Tennyson St., Denver 12. Also sold through authorized distributors all principal cities.

**ORANGEBURG MFG. CO., Div., Flintoke Co., Orangeburg, N. Y.—Plant: 6756 Central Ave., Newark, Calif., J. M. Monahan, Dist. Mgr.; R. F. Ohison, 101 Jones Bldg., Seattle; W. P. Paulson, 12391 S. W. Red Hill Ave., Santa Ana, Calif. Distributed by Graybar Elec. Co., Inc., and General Electric Supply Co., all branches; Fred D. Benz, 520 4th St., San Francisco; Sheeter & Co., 1417 Georgia St., Los Angeles; Shaffer & Nelson, Inc., 312 Occidental Ave., Seattle.**

**ORYX CO.**, 9015 Wilshire Blvd., Suite 211, Beverly Hills, Calif.—Bernard L. Cahn, 420 Market St., San Francisco.

**OSMOSE WOOD PRESERVING CO.**, 980 Elliott St., Buffalo, N. Y.—Dan Kamphaeusen Co., Continental Oil Bldg., Denver, Colo.

**OSTER MFG. CO., JOHN**, 5055 N. Lydell Ave., Milwaukee, Wis.—Allen B. Carpenter, 1314 Wazee St., Denver; Robert W. Beckman, 12032 25th Ave. S. W., Seattle; Roy Wallace, 101 Valmar Terrace, San Francisco; Alex P. Zakes, 1431 S. Los Angeles St., Los Angeles.

**OVERBAGH & AYRES MFG. CO.**, 411 S. Clinton St., Chicago, Ill.—W. W. Wheat & Son, 2219 4th Ave., Seattle 1; F. J. Airey Co., 1513 S. Mateo St., Los Angeles 21.

**OWENS-CORNING FIBERGLAS CORP.**, Nicholas Bldg., Toledo, Ohio—Plant, 960 Kifer Road, Santa Clara, Calif.; Blackwood's, Inc., 3609 E. Olympic Blvd., Los Angeles 23; Electrical Specialty Co., 158 11th St., San Francisco 3; Insulation Supply, 779 E. Pico Blvd., Los Angeles 21; C. D. LaMoree Co., 1325 San Julien St., Los Angeles 15; Western Fibrous Glass Products Co., 3049 E. 12th St., Los Angeles 23.

**O. Z. ELECTRICAL MFG. CO., INC., 262 Bond St., Brooklyn, N. Y.—Eichorn & Melchior, 749 Bryant St., San Francisco; Agencies Co., 836 Traction Ave., Los Angeles; Wm. A. Proby Associates, 2915 13th S. W., Seattle, and 1308 N. W. Everett St., Portland; Harry F. Ream, 1028 Champa St., Denver 14. (See ad, p. 53)**

**P-C COMPANY**, 138 Railroad Ave., Edmonds, Wash. Sold thru wholesalers and direct factory sales.

**PLM PRODUCTS INC., 3862 W. 150th St., Cleveland 11, Ohio—Sold through major cable companies. (See ad, p. 99)**

**P-W INDUSTRIES, INC., Duncan and Melrose, Philadelphia, Pa.—Earl S. Condon Co., 3450 Wilshire Blvd., Los Angeles; Oliver B. Lyman, 55 New Montgomery St., San Francisco; J. A. Tudor, 2605 Western Ave., Seattle, and 1004 S. E. Belmont, Portland; Technical Service Co., 730 Haines Ave. N. W., Albuquerque; Landes, Zachary & Peterson Co., 275 Kalamath St., Denver 23; Electrical Sales Co., P. O. Box 49, Sugarhouse Sta., Salt Lake City.**

**PACIFIC CAR & FOUNDRY CO.**, 4th and Factory, Renton, Wash.—Sold through sales offices of Westinghouse Elec. Corp., Westinghouse Electric Supply Co., General Electric Co., General Electric Supply Co., Graybar Electric Co., Inc., Line Material Co., North Coast Electric Supply and North West Electric Company.

**PACIFIC CHROMALOX, INC.**, 19119 So. Hamilton St., Gardena, Calif.—Montgomery Bros. in following cities: 1122 Howard St., San Francisco; 1053 S. Olive, Los Angeles; 1632 N. W. Johnson, Portland, and 911 Western Ave., Seattle.

**PACIFIC COAST BORAX CO.**, 630 Shatto Place, Los Angeles, Calif.—(See U. S. Borax & Chem. Corp.)

**PACIFIC COAST ENGINEERING**, Oak and Clement Sts., Alameda, Calif.—Branch in Los Angeles.

**PACIFIC CONDUIT & CABLE** (Formerly Saylor Elec. Products), 1725 Standard Ave., Glendale 1, Calif.—Fred D. Benz Co., 520 4th St., San Francisco.

**PACIFIC CROSSARM CO.**, 3950 Chevy Chase Dr., Los Angeles, Calif.—Matzinger-Johnson Co., 1329 Willow St., Los Angeles 13.

**PACIFIC ELECTRICORD COMPANY**, 3217 Exposition Place, Los Angeles 18, Calif.—Edward J. Armes, P. O. Box 4050, San Francisco 3; R. Stanley Bunker 1863 Wazee St., Denver; Geo. E. Spencer, 1633 N. W. 21st St., Portland 22; Norman J. Fuchs Co., 2207 W. Catalina Dr., Phoenix.

**PACIFIC OERLIKON CO.**, 3001 N. Starr St., Tacoma, Wash.—(See United Power Control Corp.)

**PACIFIC PUMPS, INC.**, 5715 Bickett St., Huntington Park, Calif.—Branch: 593 Market St., Room 610, Balboa Bldg., San Francisco. Arthur Forsythe Co., 2800 15th Ave., West, Seattle 99; Forsythe-Constant Co., 921 West Oak St., Portland; Lang Co., 267 West First St., So., Salt Lake City 10; Lee Redman Equip. Co., 610 South 19th Ave., Phoenix; G. M. Wallace & Co., Denham Bldg., Denver 2; E. S. Constant Co., 1814 S. E. Seventh St., Portland 14.

**PACIFIC SWITCHGEAR**, Div. of Federal Pacific Electric Co., Santa Clara, Calif. (See also listing under Federal Pacific Electric.)

**PACIFIC WIRE ROPE CO.**, 1840 E. 15th St., Los Angeles 21, Calif.—Branch Offices: 681 Market St., San Francisco; 3615 N. W. St. Helens Road, Portland.

**PACSOL DIVISION**, Illinois Tool Works, 3155 W. El Segundo Blvd., Hawthorne, Calif.—James Findlay Co., P. O. Box 717, Bellevue, Wash.; Miner and Assoc., 115 Main St., El Segundo, Calif.

**PAINE COMPANY**, 501 Westgate Rd., Addison, Ill.—A. J. Nelson Co., P. O. Box 5502, Denver; James E. Culhem Co., 2006 Center St., Tacoma 5, Wash.

**PALMER MFG. CORP.**, 2200 W. Fillmore, Phoenix, Ariz.—Ben Clark, 1421 Court Place, Denver, Colo.; Joseph P. Wagner 3315 N. 60th St., Phoenix, Ariz.; Ward Francis Co., 222 Terminal Sales Bldg., Seattle 1; Western Merchandise Mart, 1355 Market St., San Francisco 3, and 1533 Wilshire Blvd., Los Angeles 17; The Palmer Co., 760 Stanford Ave., Los Angeles 21.

**PALNUT COMPANY, Mountainside, N. J.**—For Calif.: W. D. Howze & Co., 5603 N. Figueroa St., Los Angeles 42; R. C. Dudek, 407 N. Maple Dr., Beverly Hills, Calif. Outside Calif. and N. M.: United-Carr Fastener Corp., 1709 W. 8th St., Los Angeles 17.

**PAM CO.** (Formerly Elwood H. Wiles Co.), 1951 N. W. Wilson, Portland Ore.—Municipal Supply Co., 955 Stuart, Seattle; Sherman Nabaum, 4777 South 13th, Salt Lake City; Hundley Co., 3282 Fletcher Dr., Los Angeles.

**PANDUIT CORP.**, 14461 Waverly Ave., Midlothian, Ill.—Walter Corman, 7432 W. 80th St., Los Angeles; Campbell & George, 1601 Cortland Ave., San Francisco; E. H. Sosine, 3618 39th Ave. W., Seattle 99; E. F. Howe, 4328 N. 42nd Place, Phoenix; Phillips & Edwards, 265 Vermont St., San Francisco; California Wholesale Elec., 2548 Yates Ave., Los Angeles; Coast Electric, 744 G St., San Diego; North Coast Elec., 171 Jackson St., Seattle 4; Stubbs Elec. Co., 33 N.W. Park Ave., Portland 9.

**PANELLIT, INC.**, 7401 N. Hamlin Ave., Skokie, Ill.—M. D. Shriver Co., Inc., 3025 West Mission Road, Alhambra, Calif., and 1485 Bayshore Blvd., San Francisco; Tower Equip. Co., P. O. Box 158, Mercer Island, Wash., and P. O. Box 5766, Portland 22; Rodmen & Co., 420 Market St., San Francisco; James B. Drummond Co., 1060 S. Cook St., Denver.

**PARAGON ELECTRIC CO.**, 1600 12th St., Two Rivers, Wis.—Branch Office: 1226 South Atlantic Blvd., Los Angeles; McCune-Western, Inc., 51 Fremont St., San Francisco; Roy O'Connell Co., 680 Delaware St., Denver; John B. Merifield Co., Inc., 909 Western Ave., Seattle 4.

**PARAMOUNT INDUSTRIES, INC.**, G 1080 Ballenger Rd., Flint, Mich.—S. H. Babcock, 3573 Pierce St., San Francisco; E. J. Imhof 3974 Wilshire Blvd., Los Angeles; J. K. Johnston, 6405 N. E. 15th Ave., Portland; Keith Lagerstrom, 1225 E. 8750 South, Sandy, Utah; R. S. Matthewson, 8325 N. 9th Ave., Phoenix; Gregg Cloos, 977 Jackson, Denver.

**PARANITE WIRE & CABLE DIV., Essex Wire Corp. of Calif., 6415 Fleet St., Los Angeles; 274 Harbor Way, So. San Francisco; 1231 N.W. Hoyt St., Portland; 2208 White-Henry-Stuart Bldg., Seattle; 213 North First Ave., Phoenix; and 155 Van Ness, Fresno, Calif.**

**PARTLOW CORP.**, 2 Campion Road, New Hartford, N. Y.—Pacific Scientific Co. in following cities: 760 Harrison St., San Francisco; P. O. Box 22019, Los Angeles; 421 Michigan St., Seattle 8; 1218 S. E. 7th Ave., Portland 14; Slaybaugh-Thompson Co., 100 W. 13th Ave., Denver.

**PARTRICK & WILKINS CO.**, 51 North 7th St., Philadelphia, Pa.— Rollins Electric, 804 So. Atlantic Blvd., Monterey Park, Calif.

**PASS & SEYMOUR, INC., Boyd Ave., Solvay, Syracuse, N. Y.—J. G. Pomeroy Co., 1004 E. 4th St., Los Angeles 13; Keith Bering, 56 Los Altos Ave., Los Altos, Calif.; Shaffer & Nelson, 1001 S. E. Water, Portland 14; 312 Occidental Ave., Seattle 4; W. 1835 Broadway, Spokane 17, and 1415 S. Main, Salt Lake City 15; Ralph B. Black, 721 Loma Vista Dr., N.E., Albuquerque; Matt Cabot & Assoc., P O Box 3708, Honolulu, Hawaii. (See ad p. 52)**

# O. Z. ELECTRICAL MANUFACTURING CO.

Sales Office and Warehouse
406 So. Cicero Avenue
Chicago 44, Illinois
ESterbrook 9-0326

**262 BOND STREET, BROOKLYN 17, N. Y.**

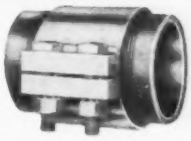
*Representatives in all Principal Cities*

Office and Factory
749 Bryant Street
San Francisco 7, Calif.
GArfield 1-7846

## CONDUIT FITTINGS

CABLE SUPPORTS CONDUIT TYPE

CABLE SUPPORTS SPLIT TYPE



SPLIT COUPLINGS

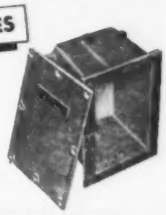
EXPANSION FITTINGS

INSULATED BUSHINGS

BAKELITE BUSHINGS

## CAST IRON BOXES

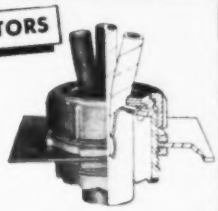
EXPLOSION-PROOF TYPE



WEATHERTIGHT SUBMERSIBLE TYPE

## CABLE TERMINATORS

TERMINATING POTHEADS



SEALING BUSHINGS

## INTERLOCKED ARMOR CABLE FITTINGS

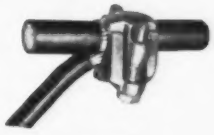
TERMINATORS

SPLICING FITTINGS

## SOLDERLESS CONNECTORS

COMBINATION LUGS

COMBINATION TWO-WAY CONNECTORS



SERVICE TAP

COMBINATION TEE AND PARALLEL CONNECTORS

## POWER CONNECTORS

T-CONNECTORS, TUBE TO MULTIPLE CABLE TYPE

BUS BAR CLAMPS

## GROUND CONNECTORS

CABLE TO PIPE OR ROD 90° OR PARALLEL

CABLE TO FLAT BAR

***They're O. K. if They're O. Z.***

**K. M.**

**RYALS**

**COMPANY**

*Representing:*

**Preformed Line Products Co.**

- Armor Rods
- Guy Grips
- Dead-Ends
- Line-Guards
- Splice Rods

**Cole Electric Co.**

- Outdoor & Indoor Power Switching Equipment; Missile and Aircraft Components

**Nicad Batteries Div. Gould National Batteries, Inc.**

- Nickel-Cadmium Batteries

**D. S. MacCorkle, Inc.**

- Underground Cable Fittings

**Interstate Drop Forge Company**

HELWIG POWER LINE TOOLS

- Cutters—wire, presplice, bolt, rod and chain

**The Post-Glover Electric Co.**

CHROMIUM STEEL GRID RESISTORS
HEAVY DUTY RHEOSTATS
MASTER SWITCHES

**Wama Company**

ADD-A-POINT TERMINAL BLOCKS

- Pressure or screw type terminals

**Taylor Electric Co.**

PLASTIC WIRING DUCT

**YUkon 2-5510**

**K. M.**

**RYALS**

**COMPANY**

**461 Market St.**

**San Francisco 5, Cal.**

**PAULDING, INC., JOHN I.**, New Bedford, Mass.—Branch Offices: 615 Second St., San Francisco; 1238 N. W. Glisan, Portland; 1855 Industrial St., Los Angeles.

**PEER, INC.**, 1200 Milton St., Benton Harbor, Mich.—Hendrie & Bolthoff, 1635 17th St., Denver; Galigher Co., 545 W. 8th South St., Salt Lake City; O'Neill Machinery Co., 1011 Howell St., Seattle; Gibson Welding Supplies, E. 218 Trent Ave., Spokane; Hickinbotham Bros., Ltd., 536 S. Aurora St., Stockton, Calif.; Pacific Welding Alloys Mfg. Co., 310 N. Avenue 21, Los Angeles.

**PEERLESS ELECTRIC CO.**, 1401 West Market St., Warren, Ohio—Norman S. Wright & Co. in following cities: 1361 Abby St., Fresno 3; 625 N. Alvarado St., Los Angeles 26; 1102 T Street, Sacramento 14; 1015 Folsom St., San Francisco 3; 235 9th Ave. N., Seattle 9; 3607 S. W. Corbett St., Portland 1; So. 125 Stevens, Spokane 4; 2641 E. Adams St., Phoenix; McComos Supply Co., 1819 Wazee St., Denver 17; Thermal Engineering Co., 1492 Major, Salt Lake City; W. M. Carroll, 111 Marble Ave. N.W., Albuquerque, N. M.; Richardson Equipment Co., 612 Front St., Boise, Ida.

**PEERLESS ELECTRIC CO.**, 576 Folsom St., San Francisco, Calif.—Richard C. English, & Assoc., 4229 122nd Ave., S. E., Bellevue, Wash.; John Allen Ware Associates, 301 West G St., San Diego, and 717 Buchanan St., Phoenix; C. A. Peterson Co., 782 E. 14th Place, Los Angeles; Alan Humphrey, 505 Mason Bldg., Fresno, Calif.; Vic W. Colbourn, 3871 Piedmont Ave., Oakland, Calif.

**PELTON DIVISION, B. L. H. Corp.**, 2929 19th St., San Francisco, (See Baldwin Lima Hamilton).

**PENETRAY CORP.**, 615 Front St., Toledo, Ohio—Branch Office: Leonard Holzman, 1328 S. Santa Fe, Los Angeles; Vernal Bingham, 4315 E. 43rd St., Seattle; J. M. Gaisford, 1328 S. Santa Fe, Los Angeles; Charles Gratiot, 1282 Folsom, San Francisco; A. J. Nelson, 1639 Blake St., Denver. For Automotive Trade: Lawrence Shriver, 714 W. Olympic, Los Angeles. For Drug Trade: Tom Stanger Co., 849 Traction Ave., Los Angeles, and Stone Hall Co., 3101 Walnut, Denver.

**PENN CONTROLS, INC.**, Goshen, Ind.—Branch Offices: 2729 Pablo Ave., Berkeley, Calif.; 333 Glendale Blvd., Los Angeles; 3010 First Ave., Seattle. Agents: Edwin P. Cook, 1863 Wazee St., Denver 2; Specialty Sales Co., 117 West Second South, Salt Lake City; Control & Equip. Co., 5106 Grand Ave. N.E., Albuquerque.

**PENN ELECTRICAL CO.**, 54 Water St., Irwin, Pa.—Central Station Equip. Co., 2323 Aviation Highway, Tucson, Ariz.

**PENNSYLVANIA TRANSFORMER DIVISION, McGraw-Edison Co., P. O. Box 330, Cannonsburg, Pa.—Fred W. Carlson, 1201 Dexter Ave., Seattle, and 935 Northwest 12th Ave., Portland; John G. Corrin, 510 W. 6th, Los Angeles; Roy E. Coulson, P. O. Box 9215, Phoenix; George E. Honn Co., 420 Market St., San Francisco; Peterson Co., 4949 Colorado Blvd., Denver 16; Clarence W. Silver Co., 550 W. 7th St., Salt Lake City 1, and 1118 North 20th St., Boise; Monitor Distributors, 604 Utah Ave., Butte, Mont.; Williamson Sales Co., 1308 Manzano, N.E., Albuquerque.**

**PENN-UNION ELECTRIC CORP.**, 315 State St., Erie, Pa.—F. M. Nicholas Co., 714 Harrison St., San Francisco; Kenneth Anderson Co., 123 S. Myers St., Los Angeles; Northwestern Agencies, 4130 First Portland; John Elggren Co., 212 West 4th So., Salt Lake City; Jim Dawson Company, 661 Delaware, Denver; R. L. Brewer Co., Inc., 100 S. El Paso St., El Paso, Tex.

**PERENY EQUIPMENT CO.**, 893 Chambers Road, Columbus, Ohio—Neil Winikoff, 2700 Beacon, Seattle; Carl Herrmann Associates, P. O. Box 1179, Palo Alto, Calif.

**PERFECLITE CO.**, 1457 E. 40th St., Cleveland, Ohio—Jos. Fellicano & Assoc., 1226 S.W. Hume St., Portland, and 551 Walnut, Pasadena, Calif.; McGillan Sales Co., P. O. Box 4013, Albuquerque; Fred D. Benz Co., 520 - 4th St., San Francisco; Graybar Electric, Wesco, Gesco & Electric Corp., all principal cities.

**PERFECT-LINE MFG. CORP.**, Old Country Rd., Hicksville, N. Y.—Matzinger-Johnson, 1329 Willow St., Los Angeles 13; W. B. Imholt Co., 275 Brannan St., San Francisco; W. T. Durkin, 9108 S. W. 50th Ave., Portland; L. D. Hood, 87 S. Kalamath St., Denver.

**PERFECTION MICA CO.**, 1322 N. Elson Ave., Chicago, Ill.—Ferlmuth Elec. Assoc., 2419 S. Grand Ave., Los Angeles, and 941 Charleston Road, Palo Alto, Calif.; Alta Instrument Div., 2950 S. Fox St., Englewood, Colo.

**PERMACEL**, U.S. No. 1, New Brunswick, N. J.—Branch Offices: 4827 East 49th St., Los Angeles 58; 489 Sixth St. San Francisco 3, and 825 Stacy St., Seattle 8; C. D. LaMoree, 2433 Birkdale, Los Angeles, and 2221 Fourth St., Berkeley, Calif.

**PERMUTIT CO.**, 50 West 44th St., New York City 36—Oliver B. Lyman Co., 55 New Montgomery St., San Francisco; Bumstead and Woolford, Fourth Ave. Bldg., Seattle, and 320 S. W. Stark St. Portland. Branch Office: 302-B S. Brand St., Glendale Calif., and 1485 Holland St., Denver.

**PETERSEN ENGINEERING CO., INC., 460 Kifer Road, Santa Clara, Calif.—Sold through Graybar Electric Co., Inc., all principal cities; Fornaciari Co., 5350 E. Washington, Los Angeles; American Equipment & Body Co., 1461 E. Washington Blvd., Los Angeles 21; T. A. Ford Company, Inc., 320 S. San Marino Ave., San Gabriel; Utility Body Co., 1530 Wood St., Oakland; Standard Trailer Co., 415 San Leandro Blvd., San Leandro, Calif.; Truck Equipment Co., 3963 Walnut St., Denver; S. W. Pressey & Son, P.O. Box 614, Pueblo, Colo.; Feenaughty Machinery Co., 112 E. Belmont St., Portland; Douglas Hood Company, 1947 Northwest Overton, Portland; Wittenberg Motor Co., 2100 5th Ave. West, Seattle; Air Mac, Inc., 3838 4th Ave. South, Seattle; The Carrington Company, 91 Columbia St., Seattle; Northern Commercial Co., 4233 W. Marginal Way, Seattle 6; Truck Welding & Equipment Co., 739 Ninth Ave. N., at Westlake, Seattle 99; Yukon Equipment, Inc., 327 Coleman Bldg., Seattle; Robblee Utilities Equipment Co., 3423 Fourth Ave. So., Seattle; Paul K. Haggard Co., 4431 N. 7th St., Tacoma 6; Joslyn Pacific Co., 2424 1st Ave. So., Seattle 4; American Machine Co., W. 1026 Broadway, Spokane; Williamson Body and Equipment Co., Pocatello, Ida.; Engineering Sales Service, 410 S. Capitol Blvd., Boise; Arizona Cedar Rapids Co., 1802 W. Jackson St., Phoenix; Montana Powder & Equipment Co., P.O Box 1688, Helena; Utah Truck & Equipment Co., 1045 S. Main St., Salt Lake City 1; Century White Truck Co., Inc., P.O. Box 419, Casper, Wyo.; Honolulu Iron Works Co., P.O. Box 3140, Honolulu 2.**

**PFAFF & KENDALL**, 84 Foundry St., Newark, N. J.—Forest E. Hope, Western Sales Manager, P. O. Box 249, Burlingame, Calif.; Wrathall & Krusi, Inc., 681 Market St., San Francisco; C. A. Peterson Co., 784 East 14th Place, Los Angeles; Wm. Benndorf Co., 221 E. Camelback Road, Phoenix; John C Henberger Co., 4454 Ingraham St., San Diego Traffic Safety Supply Co., 2636 N. E. Sandy Blvd. Portland; Caldwell Machinery So., Inc., 4614 8th Ave., N. W., Seattle; Frederick Gleason, 6511 24th N. E., Seattle; Engineering Sales Service Inc., 5102 State St., Boise; Matt Cabot & Associates, P. O. Box 3708, Honolulu, Hawaii.

**PHALO PLASTICS CORP.**, 530 Boston Turnpike Shrewsbury, Mass.—Frank Lebell Co., 1485 Bayshore Blvd., San Francisco; Shefler-Kahn Co., P. O. Box 1587, Phoenix; Bray & Carter, 2232 W 11th St., Los Angeles.

**PHELPS DODGE COPPER PRODUCTS CORP., 300 Park Ave., New York City 22, N. Y.—Branch Offices; W. M. McKenney, Manager, 6100 Garfield Ave., Los Angeles 22; Homer L. Hussey, Mgr., 625 Market St., San Francisco; George A. O'Brien Mgr., 505 Skinner Bldg., Seattle 1; R. A. Baylee Mgr., 1436 N.W. 16th Ave., Portland 9; F. W Packard, 621 17th St., Denver.**

**PHILADELPHIA ELECTRICAL & MFG. CO.**, 1200-36 N. 31st St., Philadelphia, Pa.—Keeler, White Co., 615 7th St., San Francisco; 322 N. W. 4th Ave. Portland; 436 Colyton Ave., Los Angeles, and 1041 6th Ave. B, Seattle; L. M. Slusser, 318 Dooly Block, Salt Lake City; Hamilton Associates, 1236 Elati St., Denver; Barney Hartley Enterprises, P. O Box 4381, Phoenix.

**PHILCO CORPORATION**, C and Tioga Sts., Philadelphia 34, Pa.—Regional Offices: C. E. Lindstrom, Regional Mgr., 1355 Market St., San Francisco; George Daum, Regional Mgr., 309 S. W 6th Ave., Portland. Government and Industrial Div., 4700 Wissahickon Ave., Philadelphia 44, Pa Field Offices: Colorado Springs, 1422 N. Hancock. Los Angeles, 10589 Santa Monica Blvd; Redwood City, Western Development Laboratories, 806 Chestnut St., Oscar Simpson, Gen. Mgr., John K Campbell, Regional Mgr.

**PHILLIPS DRILL CO.**, US 12 and Liberty Trail, Michigan City, Ind.—Branch Offices: 432 Colyton St. Los Angeles; 1828 E. 14th St., San Francisco Representative: K. L. Tamiesie & Co., 1825 S.W 6th Ave., Portland 1.

**PHOENIX PRODUCTS CO.**, 4715 N. 27th St., Milwaukee 9—Connell Motor Truck Co., 20 N. Wilson Way, Stockton; Calif. Elec. Supply, Folsom & 12th San Francisco; Phillips & Edwards, 265 Vermont St., San Francisco; Clyde Equipment Co., 1631 N.W. Thurman St., Portland 9; General Electric Supply Co., Boise, Ida.

**PHOTOMATION, INC.**, 96 S. Washington Ave., Bergenfield, N. J.—Landes, Zachary & Petersonn 153½ West 2nd S., Salt Lake and 275 Kalamath Denver 23; David A. Darling, 850 W. Hastings Vancouver, B. C.; Crown Eng. Co., 113 S. Alvarado St., Los Angeles 57; Stillson Assoc., 33 Meadowpart Ct., Orinda, Calif.; Sight and Sound 4325 S.W. 96th Ave., Beaverton, Ore.; John Williams Co., 766 Dexter Horton Bldg., Seattle 4

**PHOTOSWITCH,** Div. Electronics Corp. of America, 77 Broadway, Cambridge, Mass.—Branch Office: 1485 Bayshore Blvd., San Francisco. Agents: Eicher & Co., Inc., 5 West Harrison St., Seattle; Automatic Control & Equip. Co., 5750 Pecos St., Denver; Hundley Co., 3282 Fletcher St., Los Angeles; Technical Service Co. Inc., 2430 E. Washington St., Phoenix; Phillips Edwards Elec. Corp., 265 Vermont St., San Francisco.

**PHOTOVOLT CORP.,** 95 Madison Ave., New York City 16—Braun Corp., 1363 So. Bonnie Beach Pl., Los Angeles; Braun-Knecht-Heimann Corp., 1400 16th St., San Francisco; Scientific Supplies Co., 600 Spokane St., Seattle; Arthur E. Booth, 265 S. Alexandria, Los Angeles.

**PIC AUTOMATION CONTROLS DIV.,** General Controls Co., 8080 McCormick Blvd., Skokie, Ill.—Branch Offices: 801 Allen, Glendale 1, Calif.; 600 Bryant St., San Francisco; 2862 S. State, Salt Lake City, 1162 Elati St., Denver; 124 E. Roosevelt, Phoenix. Agents: C. B. Parsons, 307 3 First Ave., Seattle; E. W. Bliss Co., 816 N. Hollywood Way, Burbank, and 7th and Commercial St., San Jose; Gough Industries, 819 E. First St., Los Angeles; R. V. Weatherford, 6921 San Fernando Rd., Glendale; Pacific Coast Instr. Co., 256 Mission, San Francisco; Phillips & Edwards Elec. Corp., 265 Vermont St., San Francisco.

**PIEPER-LILLARD, INC.,** 122 No. Kirkwood Rd., St. Louis 22, Mo.—James R. Kearny Co., through Maydwell & Hartzell, San Francisco, Los Angeles, Spokane, Seattle, Portland and Phoenix; Bill Horning Sales, 902 Friedel Ave., Vancouver, Wash.; Donald Ingalls, 1485 Bayshore Blvd., San Francisco.

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**PIONEER GEN-E-MOTOR CORP.,** 5841 W. Dickens Ave., Chicago, Ill.—Simpson-Maxwell Co., 1931 W. George St., Vancouver, B. C.; Major Supply Co., 3040 W. McDowell, Phoenix; Elec. & Diesel Equip. Co., 1268 Kettner Blvd., San Diego 1; Fremont Elec. Co., 744 No. 34th St., Seattle.

**PIPE COUPLINGS MFGRS., INC.,** P. O. Box 488, Martins Ferry, Ohio—F. M. Nicholas Co., 714 Harrison St., San Francisco 7; Kenneth Anderson Co., 123 S. Moyers St., Los Angeles, and 422 South First Ave., Phoenix; Northwestern Agencies, Inc., 4130 First Ave. South, Seattle 4, and 2941 N. W. Quimby, Portland.

**PIPE LININGS, DIVISION OF AMERICAN PIPE AND CONSTRUCTION CO.,** 2414 E. 223rd St., Wilmington, Calif.

**PITTSBURGH COIL CO.,** Box 700, Carnegie, Pa.—Wm. Belfer, 926 Howard St., San Francisco; Perlmuth-Electronics Associates, 2419 So. Grand Ave., Los Angeles 7.

**PITTSBURGH REFLECTOR CO.,** Oliver Bldg., Pittsburgh, Pa.—L. D. Morgan, 253 Securities Bldg., Seattle 1; Leonard Slusser, 318 Dooly Bldg., Salt Lake City 1; Harry Linch Co., 1690 Detroit St., Denver 6; L. V. Walker Co., 542 Thornton Ave., San Francisco; S. E. Gardner, 459 Ocampo Dr., Pacific Palisades, Calif.; H. J. Fender, 1620 East Earll Dr., Phoenix.

**PITTSBURGH STANDARD CONDUIT CO.,** 61 Bridge S., Pittsburgh 23, Pa.—Allied Industries, 412 Seaton St., Los Angeles 13; Keeler White Co., 615 Seventh St., San Francisco; Bruce-Emmett Co., 1016 First Ave. South, Seattle 4, 830 S. E. Alder St., Portland, N. 5923 Drumheller, Spokane; Gaer Sales, 1223 Quivas St., Denver; John Carder, Jr. Co., 1624 First St. N. W., Albuquerque.

**PLASTIC WIRE & CABLE CORP.,** East Main St., Jewett City, Conn.—Bruce-Emmett Co. in following cities: 830 S. E. Alder St., Portland 9; 1016 First Ave. South, Seattle 4, 410 Wall St., Salt Lake City, and N. 5923 Drumheller, Spokane; F. M. Nicholas Co., 714 Harrison St., San Francisco; Kenneth Anderson Co., 123 S. Myers St. Los Angeles 13, and 422 S. 7th Ave., Phoenix.

**PLASTIMAYD CORP.,** 2204 S. E. 7th Ave., Portland 14.

**PLYMOUTH RUBBER CO.,** 59 Revere St., Canton, Mass.—Eckert-Lloyd Co., 1225 6th St., San Francisco 7 and 2115 S. San Pedro, Los Angeles; Wm. O. Proby & Assoc., 2915 13th Ave. S. W., Seattle 4 and 1308 N. W. Everett, Portland 9; Ben T. Clark, 1421 Court Pl., Denver; J. R. Christensen Agency, 247 E. 5th S., Salt Lake City 2; Wm. Benndorf, 221 E. Camelback Rd., Phoenix.

**POLES, INC.,** E. 706 Sprague Ave., Spokane, Wash.—John Elggren, 428 S. W. Temple, Salt Lake City; Hamilton Associates, 1236 Elati St., Denver.

**POLE INSPECTORS & TREATERS, INC.,** Continental Oil Bldg., Denver, Colo.—Dan Kamphausen, Continental Oil Bldg., Denver; Paul Ousley, 10710 S. W. Elysium St., Portland; George Barrett, 4741 7th Ave., Sacramento, Calif.; F. Stogdill, 743 Lake Elmo Road, Billings, Mont.


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**POLLAK LUMINESCENT CORP.,** 732 S. Federal St., Chicago 5, Ill.—P. A. Douden, 1645 Wazee St., Denver; Bruce-Emmett Co., 830 S. E. Alder St., Portland 14.

**POLYKEN SALES DIV., Kendall Co.,** 309 W. Jackson Blvd., Chicago, Ill.—Darger Co., 211 S. Second West, Salt Lake City; Phillips & Edwards Elec. Corp., San Francisco, Santa Rosa, Oakland, Stockton, Redwood City; Incandescent Supply Co., San Jose, Redding, Fresno, Sacramento.

**POLYMER CORP. OF PENNA.,** 2140 Fairmont Ave., Reading, Pa.—E. Jordan Brookes Co., 6601 Telegraph Rd., Los Angeles, 3564 30th St., San Diego, 571 Howard St., San Francisco; Plasticrafts, Inc., 2800 N. Speer Blvd., Denver, and 3710 Edith Blvd., N.E., Albuquerque; Allied Agencies, Inc., 4321 Linden Ave., No. F., Seattle 3; Universal Plastics Co., 1105 Westlake Ave. N., Seattle 9.

**POPE & TALBOT, INC.,** P. O. Box 186, St. Helens, Ore.—Matzinger-Johnson Co. 1329 Willow St. Los Angeles 13.

**PORCELAIN INSULATOR CORP.,** 761 Main St., Lima, N. Y.—Joslyn Pacific Co. in following cities: 5100 District Blvd., Los Angeles 58; 180 Potrero Ave., San Francisco 3; 808 N. W. 16th Ave., Portland 9; 2424 First Ave. South, Seattle 4; 560 Gale St., Salt Lake City.

**PORCELAIN PRODUCTS CO.,** North Patterson, Carey, Ohio—Allied Industries, 412 Seaton St., Los Angeles; George A. Gray Co., 2720 17th St., San Francisco; Smith & Thomas Co., 568 1st Avenue S., Seattle; Kenneth B. Schumann Co., 1073 Galapago St., Denver.

**PORTABLE ELECTRIC TOOLS, INC.,** 320 W. 83rd St., Chicago 20, Ill.—M. L. Bud Cohn, 1323 Venice Blvd., Los Angeles 6; Cohn & Shane, Inc., 1485 Bayshore Blvd., San Francisco.

**PORTER CABLE MACHINE CO.,** 700 Marcellus St., Syracuse, N. Y.—Branch Office: 1101 20th St., San Francisco 7, Calif.; 2400 S. Grand Ave., Los Angeles 7; 233 West Lake North, Seattle.

**PORTER, H. K., COMPANY, INC.,** Porter Bldg., Pittsburgh, Pa. (See Electric Service Works, Delta-Star Electric Div.—Also Delta-Star Electric Div., and Thomas Works, Delta-Star Elec. Div.)

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**POST-GLOVER ELECTRIC CO.,** Box 709, Covington, Ky.—K. M. Ryals Co., 461 Market St., San Francisco 5; John Hyatt Co., P. O. Box 22105, Los Angeles 22, Calif.; Joseph F. Taraba Co. P. O. Box 5232, Portland 16.

**POTTER & BRUMFIELD, INC.,** Princeton, Indiana—C. E. Ault Associates, 906 Willow Rd., Menlo Park, Calif.; Fred H. Haight, 3212 Eastlake Ave., Seattle 2, and Portland, Ore.; G. S. Marshall Co., 2065 Huntington Dr., San Marino; 3525 Fifth Ave., San Diego, Pima Plaza No. 8, 2030 E. Broadway, Tucson; R. G. Bowen Co., 721 S. Broadway, Denver; 5175 S. 4660 West, Kearns 18, Utah; 2228-A San Mateo Blvd., N.E., Albuquerque.

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**POWER-STRUT, INC.,** Farmingham, Mass.—The Squires Co., 370 Fourth St., San Francisco.

**PRAT-DANIEL,** S. Main & Meadows Sts., Norwalk, Conn.—R. F. McDonald Co., 1485 Bayshore, South San Francisco.

**PRECISION MAGNETIC CONTROLS, INC., 233 Chestnut St., Ridgewood, N. J.—C. E. Ingalls & Sons, Monadnock Bldg., San Francisco; William Horning, 905 Freidel Ave., Vancouver, Wash.; Industrial Engineering & Equip. Corp., 2975 Wilshire Blvd., Los Angeles; L. M. Slusser, 318 Dooly Block, Salt Lake City; Jim Dawson Co., 661 Delaware St., Denver.**

**PRECISION THERMOMETER & INSTRUMENT CO.,** 1434 Brandywine St., Philadelphia 30, Pa.—Denver Fire Clay Co., 3033 Blake St., Denver; Martig's Inc., 5741 N.E. Glisan St., Portland 13; Denver Instrument Co., 1812 Montana St., El Paso, Tex.; Paul W. Beggs & Son, 314 Seventh St., San Francisco; Gene D. Pribble Co., 3106 W. Beverly Blvd., Montebello, Calif.

**PRECISION TRANSFORMER CO.,** 2218 W. Lake St., Chicago, Ill.—Garnett-Young & Co., 390 Fourth St., San Francisco, 1928 First Ave. S. Seattle, 1238 N. W. Glisan St., Portland, 345 E. Pasadena Phoenix, 3775 Broadway So., Los Angeles; and Young Electric & Mfg. Co., 2134 Curtis St., Denver.

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**PRESCOLITE MFG. CORP.,** 2229 4th St., Berkeley, Calif.—Branch: 908 E. Third St., Los Angeles; A. L. Perdue, 4305 Ravenwood Ave., Sacramento; John Allen Ware & Associates, 301 West G St., San Diego, and Phoenix; Gleason's, 4710 University Way, Seattle; J. R. Christensen, 247 E. 5th So., Salt Lake City; Al Thompson, 2232 S. Meade St., Denver.

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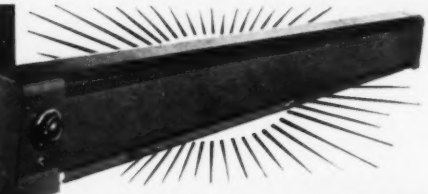
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**PRITCHARD, J. F. & COMPANY**, 4625 Roanoke Parkway, Kansas City, Mo.—R. R. Derber Co., 4020 S. Firestone Blvd., Los Angeles; Cone & Wallace Co., 1325 S. 26th St., Phoenix; F. K. Donnelly Co., 401 E. 92nd St., Seattle 15; E. N. Murray Co., 240 Denver Club Bldg., Denver; Brod & McClung, 9800 S.E. McBrod Ave., Portland; The Lang Co., 267 West First St. S., Salt Lake City; The Fulcher Co., 24 California St., San Francisco.

**PRODELIN, INC.**, 307 Bergen Ave., Kearney, N. J.—Maydwell & Hartzell, Inc., 870 Tennessee St., San Francisco 3; 427 W. Fifth St., Los Angeles 13; 2318 N. W. Vaughn, Portland; 336 Dexter Ave., Seattle 4; 121 S. Monroe St., Spokane, and 324 S. 2nd Ave., Phoenix.

**PRODUCTION INSTRUMENT CO.**, 8080 McCormick Blvd., Skokie, Ill.—C. B. Parsons, 3028 First Ave., Seattle 1; General Controls Co., 801 Allen Ave., Glendale; 600 Bryant St., San Francisco; 108 S. Sixth St., Phoenix; 1162 Elati, Denver; 353 W. 4th St. So., Salt Lake City; R. V. Weatherford, 6921 San Fernando Rd., Glendale.

**PRODUCTO ELECTRIC CO.**, 932 Rogers Place, New York City 59—Suchman Associates, 837 East 4th Place, Los Angeles 13.

**PROTECTOWIRE CO.**, Washington St., Hanover, Mass.—Branch Offices: Protectowire Pacific Co., Hampton Bldg., Longview, Wash.; 581 Monument Blvd., Concord, Calif.

**PRYNE & CO., INC.**, 206 N. Towne Ave., Pomona, Calif. (See Emerson-Pryne)

**PULLMAN VACUUM CLEANER CORP., 25 Buick St., Boston 15, Mass.—Matzinger-Johnson Co., 1329 Willow St., Los Angeles.**

**PURE CARBON CO.**, 445 Hall Ave., St. Marys, Pa.—C. B. Gratiot, 1282 Folsom St., San Francisco, and R. F. Gratiot, 1261 S. Glendale Ave., Glendale 5, Calif.; C. M. Coffinberry, 2377 Galbreth Rd., Pasadena, Calif.

**PYLE NATIONAL CO.**, 1334 N. Kostner Ave., Chicago 51, Ill.—Branch Office: 333 Broadway, Millbrae, J. A. Kresich, District Mgr., H. R. Benike, 242 S. Anderson St., Los Angeles, Dist. Mgr., M. V. Hickey, 1138 Poplar Place, Seattle 44; Rep.: Sales Engineers, 211 Wazee Market, Denver 4; Ralph Black, 721 Loma Vista Dr. N.E., Albuquerque.

**PYRAMID ELECTRIC CO.**, 1445 Hudson Blvd., North Bergen, N. J.—Jack Berman Co., 1141 So. La Cienega Blvd., Los Angeles, Calif.; F. W. Moulthrop Co., 575 Tenth St., San Francisco; Burt C. Porter, 1209 Poplar Place, Seattle.

**PYRAMID INSTRUMENT CORP.**, 630 Merrick Rd., Lynbrook, N. Y.—Maddox Sales Co., 914 S. 3rd St., Los Angeles; Baxter Co., 101 Kansas St., San Francisco; Northwestern Agencies, 4130 First Ave. South, Seattle; R. D. Florance, 2052 Humboldt St., Denver; Darger Co., 211 S. 2nd West, Salt Lake City.

**PYRENE C-O-TWO** Div. of Fyr-Fyter Co., U. S. Highway 1, Newark, N. J.—Branch in Los Angeles, 1538 Esperanza St. Distributed by Ets-Hokin-Galvin, San Francisco.

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**QUEEN MFG. CO.**, 502 Minnesota St., San Francisco—Hornstein Bros., P. O. Box 3170, San Francisco.

**QUICFREZ INC.**, Fond du Lac, Wis.—Hornstein Bros., P. O. Box 3170, San Francisco.

**R & I E EQUIPMENT DIV.**, of I-T-E Circuit Breaker Co., Greensburg, Pa.—District Offices: 116 New Montgomery St., San Francisco 7, 655 Broadway Bldg., Denver 3, 1921 E. 7th St., Los Angeles 21. Sales Agents: Garland Affolter Eng. Corp., 1233 N. E. 12th St., Portland 9, and 2603 Western Ave., Seattle 1; Central Station Equip ment Co., 2323 Aviation Highway, Tucson; Elec'l & Mechanical Supply Co., Inc., 2000 Texas St., El Paso; R. E. McDonough Co., 829 Maryland Ave., Butte, Mont.; Riter Engineering Co., 136 S. Main St., Salt Lake City 1.

**R T & E CORP., 1900 E. North St., Waukesha, Wis.—Branch Plant: 12600 S. W. Hwy. 217, P. O. Box 6387, Portland 23; H. L. Mooney, 2675 Hillcrest, Medford, Ore.; Walter Lassen, 703 Custer, Billings, Mont.; N. R. Beebe, 2200 Booksin, San Jose, Calif.; D. B. Cole, 1215 Flintridge, Pasadena, Calif.; T. R. Van Wagoner, 1415 S. Main St., Salt Lake City; K. H. DuBois, 16619 S.E. 12th, Bellevue, Wash.**

**RAB ELECTRIC MFG. CO., INC.**, 605 E. 132nd St., New York City—S & W Electric, 2144 Welton, Denver; Ed B. Schack, 2216 First Ave., Seattle; Jack Payne, 1101 East 5th St., Los Angeles 13; W. B. Imholt Co., 275 Brannan, San Francisco.

**RACON ELECTRIC CO., INC.**, 1261 Broadway, New York City 1—Wm. H. and Don C. Wallace, 1206 Maple Ave., Los Angeles 15.

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**RADIO FREQUENCY LABORATORIES, INC., Test & Service Products Div.**, Powerville Road, Boonton, N. J.—Instruments for Measurements, 3455 Cahuenga Blvd., Hollywood 28; Hawthorne Electronics, 101 Administration Bldg., Boeing Field, Seattle 8; Williams & Associates, Inc., 2261 S. Albion St., Denver; Roersh Laundry, 1063 Howard, San Francisco.

**RADIX WIRE CO.**, 26260 Lakeland Blvd., Cleveland, Ohio—Brill Electric Sales, 446 Bryant St., San Francisco; Bruce-Emmett Co., 830 S. E. Alder St., Portland; F. Alleman Co., 1625 Blake Ave., Los Angeles.

**RALCO MFG. CO.**, 123 N. Albany Ave., Chicago, Ill.—General Electric Supply Co., Graybar Electric Co. Inc., all principal cities; Industrial Electric Service Co., Roseburg, Ore., Arcata, Calif., and Aberdeen, Wash.; Mine & Smelter Supply Co., Salt Lake City.

**RAMBUSCH DECORATING CO.**, 40 W. 13th St., New York 11, N. Y.—Brundage Lighting Associates, 288 7th St., San Francisco; Matt Cabot & Associates, P. O. Box 3708, Honolulu, Hawaii.

**RAMCO ENG. & MFG. CO., 5413 N.E. Columbia Blvd., Portland 18, Ore.; Jim Chamberlin, 7924 Excell Dr., Spokane; Carl Edstrom, 100 Roy St., Seattle; Hill & Deitrick, P. O. Box 627, Oakland 4; Jack Rice, 500 Westlake No., Seattle; Victor J. Miller, 4122 S. E. 10th, Portland. (See ad, p. 56)**

**RAMO-WOOLDRIDGE CORP. (See Thompson Ramo-Wooldridge)**

**RAMSET FASTENING SYSTEM**, Winchester Western Div., Olin Industries, Inc., 12117 Berea Rd., Cleveland, Ohio—Cascade Distributors, 1918 First Ave. South, Seattle 4; Thunderbird Sales, 2255 West McDowell, Phoenix; Landes, Zachary & Peterson, 275 Kalamath St., Denver. Factory Representatives: T. V. Williams, P. O. Box 564, Eugene, Ore.; R. Ernst, 5016 E. Olympic Blvd., Los Angeles; F. A. Mullen, 59 Sixth Ave., San Francisco.

**RANCO, INC.**, 601 West 5th Ave., Columbus, Ohio—Franklin G. Slagel, 3520 Council St., Los Angeles.

**RANSOME TORCH & BURNER CO.**, 4030 Hollis St., Emeryville, Calif.—Meeder Equip. Co., 1745 N. Eastern Ave. Los Angeles.

**RAPIDAYTON DIVISION**, Tait Mfg. Co., 500 N. Webster St., Dayton, Ohio—Edwin P. Cook, 1863 Wazee St., Denver 2; Rogers K. Butz, 555 E. Walnut St., Pasadena; Jud B. Babcock, 1545 Franklin Ave., Seattle 2.

**RAPID ELECTRIC CO.**, 2881 Middletown Road, New York City—L. H. Butcher & Co., 3628 E. Olympic Blvd., Los Angeles, and 230 South 4th St., Salt Lake City; Alan Baker, 10 Bluxome St., San Francisco 7; Industrial Materials Co., 383 Brannan St., San Francisco; Peninsular Associates, 1345 Hancock St., Redwood City, Calif.

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**RAWLPLUG CO., INC.**, 200 Petersville Rd., New Rochell, N. Y.—Branch Offices: 735 E. Washington Blvd., Los Angeles 21; 841 Delaware, Denver; 70 Marion St., Seattle; 1533 S. Morrison St., Portland; 3941 Mason Ave., San Diego 10; 3060 N. 16th St., Phoenix; 3285 21st St., San Francisco 10.

**RAY FITTING & BOLT CO.**, 175 N. Vernon Ave., Pasadena, Calif.—Jim Shirreffs Co., 3601 S. Broadway Place, Los Angeles; Guy de Leuze Co., 1923 Bryant St., San Francisco; John Allen Ware, 301 W. "G" St., San Diego; John Allen Ware, Jr., P. O. Box 4216, Phoenix.

**RAYLINE CO.**, 1015 Chautauqua Blvd., Pacific Palisades, Calif.

**RAYLITE ELECTRIC CORP.**, 305-315 Rider Ave., Bronx 51, N. Y.—Brill Electric Sales, 446 Bryant St., San Francisco.

**THE RAYMOND CORP.**, 143 Madison St., Greene, N. Y.—W. T. Billard, Inc., 734 E. 3rd St., Los Angeles; Air-Mac, Inc., 3838 4th Ave., Seattle 4; 1111 S.E. Grand, Portland and 3713 Trent St., Spokane; Murray Sales Co., 16 Wazee, Denver; The Horsley Co., 2416 Grant Ave., Ogden, Utah; Rapiston of Calif., Inc., 444 Brannan St., San Francisco; Equipment Sales Co., 720 S. 19th Ave., Phoenix, Ariz.

**RAY-O-VAC CO.**, 212 E. Washington Ave., Madison Wis.—Branch Office: C. C. Chapman, Western Regional Mgr., 111 Sutter St., San Francisco; H. M. Buchan, 947 High St., Alameda, Calif.; D. H. Herbst, 5860 Nagel Ave., Van Nuys, Calif.; V. Benson, 7217 McCool Ave., Los Angeles; W. T. Whitten, 3645 Van Owen, North Highlands Calif.; G. C. Davis, 8502 Maplewood Lane, Edmonds, Wash.; R. R. Rose, 11010 N. E. Everett St., Portland 16.

**RAYTHEON MFG. CO.**, Equipment Marketing Dept., River St., Waltham, Mass.—Branch Office: 645 Seventh St., San Francisco 11; 114 West B St., Wilmington, Calif.; 2216 Imperial Ave., San Diego; Don H. Burcham Co., 510 N. W. 19th Ave., Portland.

**REA MAGNET WIRE CO., INC.**, 3610 E. Pontiac St., Fort Wayne, Ind.—Branch Office: 3136 East 11th St., Los Angeles 23.

**READ STANDARD DIVISION**, 901 South Richland, York, Pa.—Robert M. Langmack Co., 406 Paseo de la Playa, Redondo Beach, Calif.; W. R. Hendrey Co., Smith Tower, Seattle.

**READY-POWER CO.**, 3828 Grand River & Avery St., Detroit, Mich.—Karl Moeliendick, 7813 California Ave., Huntington Park, Calif.; Geo. Hundsorfer and Harold Thompson, 1107 E. Pike St., Seattle 22.

**REDMOND CO., INC.**, Owosso, Mich.—Branch: 11526 Burbank Blvd., No. Hollywood, Calif.

**REES, INC., MACKWORTH G.**, 1573 E. Forest, Detroit, Mich.—MacKellar Electric Company, D. Douglas MacKellar, 4617 E. Cecelia St., Bell, Calif.

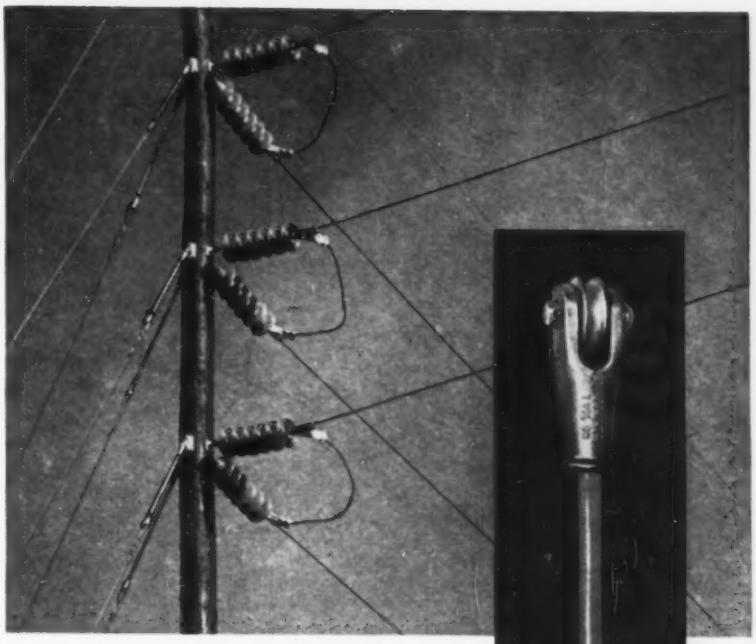
**REFRACTORIES DIV., The Carborundum Co.** Latrobe, Pa.—Eichorn & Melchior, 749 Bryant St., San Francisco 7; Lloyd E. West Co., 262 S. Los Robles Ave., Pasadena 1; L. F. Davies, 2626 Malt Ave., Los Angeles 22.

**REGAL-LITE CORP.**, 16 Blackstone St., Providence, R. I.—Carl Lertzman, 962 Vine St., Hollywood, Calif.; John Roth, 5500 East 33rd, Denver.

**RELIABLE ELECTRIC CO.**, 11333 W. Addison, Franklin Park, Ill.—H. C. Mitchell, 1235 Westgate, Los Angeles, Calif.; D. J. Smith, 4041 90th Ave. S.E., Mercer Island, Wash.; D. B. Evans, 653 Wildwood Lane, Palo Alto, Calif. Sold through Graybar Electric Co., Inc., all principal cities. Joslyn Pacific Co., Los Angeles, San Francisco, Portland, Seattle and Salt Lake City; D. J. Smith, 4041 90th Ave., S. E., Mercer Island, Wash.

**RELIANCE AUTOMATIC LIGHTING CO.**, 1927 Mead St., Racine, Wis.—Ed Warburg Co., 1207 E. 8th St., Los Angeles; H. D. Campbell & Associates, 501 Jones Bldg., Seattle; Guy deLeuze Co., 1923 Bryant St., San Francisco.

**RELIANCE ELECTRIC & ENGINEERING CO.**, 24701 Euclid Ave., Cleveland, Ohio—Branch Offices: 1525 Adrian Ave., Burlingame, Calif.; 2557 Yates Ave., Los Angeles. Agents: Shaffer & Nelson Co., 139 S. E. Taylor St., Portland; 312 Occidental Ave. Seattle, and P. O. Box 198, Spokane; C. W. Silver Co., 550 W. 7th South St., Salt Lake City; Boyd Industrial Eng. Co., 112 W. Granite St., Albuquerque; Peterson Co., 4949 Colorado Blvd., Denver; H & B Sales Co., P. O. Box 789, Phoenix. Distributor: Calif. Wholesale Elec. Co., 2548 Yates Ave., Los Angeles 22.

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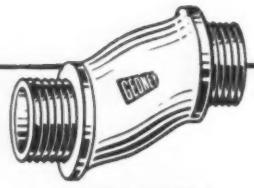

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**RELTON CORPORATION**, 99 N. Lotus Ave., Pasadena, Calif.—R. O. Clark Co., 2424 Maiden Lane, Altadena, Calif.; Roy J. Holsclaw, 2820 Grape St., Denver, Colo.; Wm. R. Burnett, 126 N.E. Broadway, Portland.

**REMCON DIV. OF PYRAMID INSTRUMENT CORP.**, 630 Merrick Rd., Lynbrook, N. Y. Branch: P. O. Box 3474, Terminal Annex Sta., Los Angeles; F. M. Nicholas Co., 714 Harrison St., San Francisco; Northwestern Agencies, 4130 1st Ave. South, Seattle; R. D. Florance & Associates, 2352 Humboldt, Denver; The Darger Co., 211 S. 2nd St. West, Salt Lake City.

**REPUBLIC CREOSOTING CO.**, 1615 Merchants Bank Bldg., Indianapolis, Ind.—B. L. George, 1101 Arch Bldg., Los Angeles; L. B. Tollefson, 7841 Lake Washington Blvd., Renton, Wash.; R. K. Nelson, Box 286, Provo, Utah.

**REPUBLIC STEEL CORP., Steel & Tubes Div., 224 East 131st St., Cleveland, Ohio—Branch Offices: 2900 E. 44th St., Los Angeles 58; 233 Rialto Bldg., San Francisco 5. Agents: J. C. Shaffer, 139 S.E. Taylor, Portland 14; E. H. Nelson, 312 Occidental Ave., Seattle 4; Shaffer and Nelson, W. 1835 Broadway, Spokane 10; C. D. Belt & Co., 2149 South Clermont, Denver 22.**

**REULAND ELECTRIC CO.**, 3001 W. Mission Rd., Alhambra—Branch: 1240 E. 12th St., Oakland; J. A. Tudor & Associates, 2605 Western Ave., Seattle, and 1004 S. E. Belmont Ave., Portland; Kern Electric Distributors, 3830 Chester Ave. Bakersfield; Capt. H. S. Walling, 845 Andrews Ave., Fresno; Air-Draulics Co., 3135 N. 29th Ave., Phoenix; James Wright, Jr., Indio, Calif.

**REVCO, INC.**, Deerfield, Mich.—T. Fred Rhoy, 2015 East 12th, Oakland, Calif.; B. O. Blaine, 2415 S. W. 146th, Seattle 66; Herbert Kaub, 1025 Santa Fe, Denver.

**REVCO INCORPORATED** 1900 Lyndale Ave. So., Minneapolis 5, Minn.—R. Meussdorffer Associates, 4625 Melrose Ave., Los Angeles; Wm. Citrin, 2253 W. Barstow, Fresno, Calif.; W. G. Ballantyne Co., 103 S. W. Front Ave., Portland.

**REVERE COPPER & BRASS, INC.**, 230 Park Ave., New York City—Branch Offices: W. E. Kalb, Dist. Mgr., World Trade Center, San Francisco; W. H. Hitchcock, Vice-Pres. Pac. Coast Division, 6500 E. Slauson Ave., Los Angeles; John E. Ziegler, Dist. Mgr., 314 Fairview Ave. North, Seattle.

**REVERE CORP. OF AMERICA**, North Colony Rd., Wallingford, Conn.—Branch Offices: Los Angeles and Seattle.

**REVERE ELECTRIC MFG. CO.**, 7420 Lehigh Ave., Chicago, Ill.—The Baxter Co., 101 Kansas St., San Francisco; L. S. Reed & Co., 1018 Lawrence St., Denver 4; R. E. Tweedy, 914 W. Madison St., Phoenix; John A. Schulter, 411 Weatherly Bldg., Portland; Robt. E. Jones, 444 Dexter Horton Bldg., Seattle; John E. Maddox, 914 E. 3rd St., Los Angeles; David Merrill, 192 North First East, Farmington, Utah.

**REYNOLDS METALS CO.**, Richmond, Va.—Branch Offices: 3201 3rd St., San Francisco; 3540 Wilshire Blvd., Los Angeles 5; San Diego, Phoenix, Salt Lake City, Portland, Spokane and Seattle.

**RHODES, INC., M. H.**, 30 Bartholomew Ave., Hartford, Conn.—Wm. J. Goebel, 225 W. 23rd St., Los Angeles; V. R. Dittman, 2300 S. Madison St., Denver; J. R. Penning, 2323 Second Ave., Seattle; Rudat & Ewing, 1477 Dana Ave., Palo Alto, Calif.

**RHODES & SON CO., M. M.**, 12 Porter St., Taunton, Mass.—Graybar Electric Co., San Francisco, Seattle and Spokane; H. H. Van Luven, 120 S. Hewitt, Los Angeles, and Morse Signal Devices, 8124 Melrose Ave., Los Angeles; Kellogg Switchboard Co., 1663 Mission St., San Francisco.

**RICHARDS CO., J. R.**, Arch St., Carnegie, Pa.—Wm. Proby Associates, P. O. Box 3744, Terminal Annex, Seattle 24, and 1308 N. W. Everett, Portland 9; Harry F. Ream Sales Agency, 1028 Champa St., Denver 4.

**RICHARDSON-ALLEN CORP.**, 116-15 Fifteenth Ave., College Point, N. Y.—Fred Carlson, 1201 Dexter, Seattle and 935 N. W. 12th Ave., Portland; Fred G. Guthrie, 420 Market St., San Francisco; Randolph Engineering Corp., 12202 E. Garvey Ave., El Monte, Calif.

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**RILEY STOKER CORP.**, 9 Neponset St., Worcester, Mass.—Bumstead-Woolford Co., 1411 Fourth Ave., Seattle, 55 New Montgomery St., San Francisco, and 320 S. W. Stark St., Portland; R. G. Meyler Corp., 510 West 6th St., Los Angeles; Pace-Turpin & Co., 726 South Third West, Salt Lake City.

**RIPLEY CO., INC.**, 1 Factory St., Middletown, Conn.—(Blowers only) A. W. Nash, 2112 S. Atlantic Blvd., Los Angeles; (Street Lights only) W. H. Eddy Electric Products, Inc., P. O. Box 1428, Phoenix; (Street Lights only) John H. Ormond Co., 600 Sixteenth St., Oakland 12; Wm. J. Cottrell, 4000 S.W. Macadam Ave., Portland 1; Graybar Electric Co. in Seattle, Portland, Spokane, Tacoma and Eugene; Guy deLeuze, 1923 Bryant St., San Francisco.

**RITTENHOUSE CO., INC.**,—East St., Honeoye Falls, N. Y.—Allen B. Carpenter Co., 1314 Wazee St., Denver; Pryne-Ritterhouse Sales Corp., 526 E. 12th St., Los Angeles, and 1315 Howard St., San Francisco; W. H. Cress Co., 201 Concord Bldg. Portland 4; Norwest Co., 210 No. 36th St., Seattle 3.

**ROANWELL CORP.**, 662 Pacific St., Brooklyn 17, N. Y.—Samuel Jewett, 13537 Addison St., Sherman Oaks, Calif.

**ROBBINS & MYERS, INC.**, 1345 Lagonda Ave., Springfield, Ohio—FAN Div.—Gordon Wood, 1855 Industrial St., Los Angeles, and 155 Jackson St. Denver; PROPELLAIR Div.: Harry F. Haldeman, Inc., 2401 S. Hill St., Los Angeles; C. W. Boswell, 1139 Mission St., San Francisco; C. L. Koerner, 12200 S. E. Oatfield Rd. Portland, and Modern Equipment Co., 52 W. 2nd South St., Salt Lake City; Materials Handling Equip., 1795 Sheridan Blvd., Denver 14; MOTORS: 3487 Cahuenga Blvd., Los Angeles; 1139 Mission St., San Francisco; 1732 Blake St., Denver 2; HOIST & CRANE: 329 Second Ave. West, Seattle 99; 2310 N. Alameda, Compton, Calif.; 1795 Sheridan Blvd., Denver 2; PUMPS: Star Machinery Co., 241 Lander St., Seattle; Brod & McClung, 9800 S. E. McBrod Ave., Portland 22; Fernholtz Machinery Co., 8466 Melrose Pl., Los Angeles 46; C. W. Boswell 1139 Mission St., San Francisco 3; Modern Equipment Co., 52 W. 2nd S. St., Salt Lake City 1; Material Handling Equip. Co., 1795 Sheridan Blvd., Denver.

**ROBERSON, INC., 1539 East 103rd St., Seattle Wash.—William C. Knapp, East 210 Boone, Spokane; Domick Electric Supply Co., Tacoma; Graybar Elec., Inc., All Branches; Inland Electric So. Spokane; Miller Supply, Inc., Walla Walla; Palmer Electric Co., Seattle; O. B. Wilt Co., 934 Terminal Way, San Carlos, Calif., and 2314 Duane St., Los Angeles; Canadian General Elec. Co., Ltd., 3030 E. Broadway, Vancouver, B. C.**

**ROBERTSHAW-FULTON CONTROLS CO.**, Santa Freeway at Euclid, Anaheim, Calif.—Tower Equipment Co., Mercer Island, Wash.; Stillson Associates, 33 Meadowpark Court, Orinda, Calif.; Carkeek Eng. Co., 285 S. Euclid Ave., Pasadena; Continental Lab., Inc., 517 4th St. W., Billings; Automatic Control & Equip. Co., 5750 Pecos St., Denver.

**ROCKBESTOS WIRE & CABLE CO.**, Division of Cerro de Pasco Corp., Nicoll and Cramer Sts., New Haven, Conn.—Branch Offices: P. O. Weston No. 6 Guittard Rd., Burlingame; Howard G. Jones, 4020 W. 3rd St., Los Angeles, Calif.; F. J. Balzer, 4015 Aurora Ave., Seattle 3.

**ROCKWELL MFG. CO.**, 400 N. Lexington Ave., Pittsburgh 8, Pa.—Branch Offices: 525 Market St., San Francisco; Tower Bldg., 1700 Broadway, Denver; 3136 E. 11th St., Los Angeles; 119 W. Denny Way, Seattle. Factory: Highway 65 and Pioneer Ave., Porterville, Calif.

**RODALE MFG. CO., INC.**, Emmaus, Pa. — K. B. Schumann Co., 1073 Galapago St., Denver; Walter Rubin, 6452 Penfield Ave., Woodland Hills, Calif.; Fred Stokes, 11509 Second Ave. N. W., Seattle.

**RODEFER GLEASON GLASS CO.**, 21st and Union Sts., Bellaire, Ohio—R. E. Baum, 861 Market, San Francisco; Maddox Sales Co., 914 E. Third St., Los Angeles.

**ROEBLING'S SONS CORP., JOHN A.**, 640 S. Broad, Trenton, N. J.—District Offices: 5340 E. Harbor St., Los Angeles 22; 900 1st Ave. So., Seattle 4; 340 Roebling's Road, South San Francisco.

**ROGERS CORPORATION**, Rogers, Conn.—Electrical Specialty Co., in following cities: 2820 E. 12th St., Los Angeles; 158 11th St., San Francisco; 2026 Arapahoe St., Denver; 2406 1st Ave. So., Seattle; 210 W. Adams St., Phoenix; 2588 Simpson Ave., Salt Lake City, and Portland, Ore.

**ROLATAPE, INC.**, 1741 14th St., Santa Monica, Calif.

**ROLL-A-REEL, INC.**, 4630 Reading Rd., Cincinnati, Ohio—Westinghouse Electric Supply all principal cities; Western Electric, 2400 Yates Ave., Los Angeles; General Electric Supply, 900 East Front St., Butte, Mont.

**ROLLER-SMITH CORP.**, 50 Avenue L, Newark, N. J. (See Federal Pacific Electric Co.) Agents: G. B. Miller So., 1550 N. Highland Ave., Hollywood 28, Calif.; J. C. McDougall, 520 First Ave. South, Seattle 4.

**ROME CABLE CORP., Div. of ALCOA, Ridge St., Rome, N. Y., and Torrance, Calif. (Conduit Plant)—Western Branch Offices and Warehouses: 1100 Selby St., San Francisco 24; 3430 Fourth Ave. South, Seattle 4; 230 South Fourth, West, Salt Lake City 1; 2510 South Malt Ave., Los Angeles 22; and 1160 Elati St., Denver 4.**

**ROSS OPERATING VALVE CO.**, 120 E. Golden Gate Ave., Detroit 3, Mich.—R. W. Atkinson Co., 3713 Santa Fe Ave., Los Angeles 58 and 655 Folsom St., San Francisco 7; Alta Engineering Co., 2950 South Fox St., Englewood, Colo.; Hydraulic & Air Equipment Co., 2316 N. W. Savier St., Portland, and 2450 6th Ave. South, Seattle 4 and Box 1572, Medford, Ore.

**ROWAN CONTROLLER**, 2400 Homewood Ave., Baltimore, Md.—Artwel Electric, Inc., 1485 Bayshore Blvd., San Francisco.

**ROYAL ELECTRIC CORP., 95 Grand Ave., Pawtucket, R. I.—Eckert-Lloyd Co., 1950 Naomi Ave., Los Angeles, and 1225 Sixth St., San Francisco; Northwestern Agencies, 4130 First Ave., South, Seattle; Marshall James, 2941 N. W. Quimby, Portland; Wm. Benndorf Co., 221 E. Camelback Rd., Phoenix; Hyde Sales Co., 888 S. Lipan, Denver.**

**ROYAL ELECTRIC MFG. CO., INC., 1122 E. 87th St., Chicago, Ill.—A & A Supply Co., 114 Morningside N. E., Albuquerque; Roy E. Coulson, 8050 North Third Ave., Phoenix; H. C. Guire Co., 715 S. York St., Denver; Bill Horning Sales, 902 Friedel Ave., Vancouver, Wn.; Leonard M. Slusser, 318 Dooly Block, Salt Lake City 1; Krause Eng. Co., 741 E. Artesia St., Long Beach, Calif.; Arthur & Allen, 420 Market St., San Francisco; Harold D. Kroh, 836 Ocean View Drive, Honolulu 16, Hawaii. (See ad, p. 59)**

**RUBY LIGHTING CORP.** (See Lighting Dynamics).

**RUGGLES-KLINGMANN MFG. CO.**, Foster Court, Salem, Mass.—Branom & Leeland Instrument Co., 2137 Second Ave., Seattle 1; C. H. Spencer & Co., 210 West 33rd South, Salt Lake City; Hendrie & Bolthoff Co., 1635 17th St., Denver 17; Charles Meriam Co., 5017 Telegraph Rd., Los Angeles 22; Ref. & Power Spec. Co., 380 Brannan St., San Francisco 7.

**RUSGREEN MFG. CO.**, 14262 Birwood Ave., Detroit, Mich.—Ralph L. Mooney, 540 E. Rose Lane, Phoenix; Magnes Co., Inc., 44 Berry St., San Francisco; Matzinger-Johnson Co., 1329 Willow St., Los Angeles 13; R. T. Lewis Co., 747 Forest St., Denver 20.

**RUSSELL MFG. CO.**, Industrial Heights, Middletown, Conn.—R. W. Conroy Co., 555 5th Ave., Oakland 6, and 911 S. E. Hawthorne Blvd., Portland; Davison Conroy, Inc., 2020 S. Grand Ave., Los Angeles 7.

**RUSSELL & STOLL CO., INC.**, 125 Barclay St., New York City, N. Y.—E. A. Will, 534 First Ave. So., Seattle 4; Allied Industries, 412 Seaton St., Los Angeles; T. J. Vilan, 1871 S. Broadway, Denver.

**S & C ELECTRIC CO. (Formerly Schweitzer & Conrad), 4435 Ravenswood Ave., Chicago, Ill.—Western Sales Division Office: 1640 Rollins Road, Burlingame, T. E. Palmer, Manager; W. R. Sibbett & F. C. Trayer, Sales Engineers. Representatives: Randolph Engineering Co., 12202 E. Garvey Ave., El Monte, Calif., and 1029 N. First St., Phoenix; Muth-Richards Co., 1804 Bush Place, Seattle; Riter Engineering Co., 422 Kearns Bldg., Salt Lake City; Andrew L. Polich, Inc., 734 N. W. Glisan St., Portland 9; Peterson Co., 4949 Colorado Blvd., Denver. 15)**

**SGE CORPORATION**, 3348 West 85th St., Inglewood, Calif.

**S & M LAMP CO.**, 2369 East 51st St., Los Angeles, Calif.—Dan H. Radke, 754 Natoma St., San Francisco; C. L. Keeshen, 119 W. 36th Place, Los Angeles; John Allen Ware, 301 West G St., San Diego, and 4807 N. 29th Place, Phoenix; Norwest Co., 330 2nd Ave. West, Seattle; J. S. Edwards Co., 1206 Hamilton St., Vancouver, B. C.; J. W. Reynolds Co., 1479 South Main St., Salt Lake City; W. H. Cress Co., 201 Concord Bldg., Portland.

**SAFEPAC CORP.**, 320 So. San Marino Ave., San Gabriel, Calif.—T. A. Ford Co., Inc., 320 S. San Marino Ave., San Gabriel, Calif.

**SAFETY LIVE LINE TOOL CO.**, 973 86th Ave., Oakland, Calif.—T. A. Ford Co., 320 South San Marino, San Gabriel, Calif.; James A. Dolan, 9627 S. W. Capitol Hiway, Portland 19.

**SAFETY SWITCHBOARD CO., INC., 910 89th Ave., Oakland, Calif.—Branch: 470 N. 16th St., Sacramento. Distr.: Herning Co., 1178 Folsom St., San Francisco; Electric Corp., 110 S. Aurora St., Stockton; Savasta Elec. Supply, San Carlos; Kitchen Electric Co., 145 West St., Reno; Valley Elec. Co., 1831 18th St., Sacramento, and 1117 Parkview, Redding; Elec. Corp., 178 10th St., Oakland. (See ad, page 15)**

**ST. LOUIS MALLEABLE CASTING CO.**, 7701 N. Conduit Ave., St. Louis, Mo.—Maydwell & Hartzell, Inc., in following cities: 427 W. 5th St., Los Angeles 13; 870 Tennessee St., San Francisco 7; 306 Dexter Ave., Seattle 4; 2318 N. W. Vaughn, Portland 10; P. O. Box 3586, Phoenix; 121 S. Monroe St., Spokane, Wn.

**ST. REGIS PAPER CO.**, Panelyte Division, 150 E. 42nd St., New York 17—Electrical Specialty Co. in the following cities: 158-168 Eleventh St., San Francisco 3; 2026 Arapahoe St., Denver 5; 1224 Southwest Morrison St., Portland 5; 2820 E. 12th St., Los Angeles 23; 2406 First Ave., So., Seattle 4; 210 W. Adams St., Phoenix, and 2588 Simpson Ave., Salt Lake City.

**SAGE ELECTRONICS CORP.**, Country Club Road, East Rochester, N. Y.—M. A. Stolaroff Co., 4622 W. Slauson Ave., Los Angeles 43; Hugh Gray Co., 2166 Market St., San Francisco; Seatronics, Inc., 1806 Bush Place, Seattle 44.

**SALISBURY & CO., W. H.**, 401 N. Morgan St., Chicago, Ill.—R. E. Cunningham & Son, 530 W. Sixth St., Los Angeles; Graybar Electric Co., Inc., and Line Material Co., all principal cities; Western Hardware & Tool, 122 10th St., San Francisco; R. E. McDougrel, 829 Maryland, Butte.

**SANGAMO ELECTRIC CO., 1301 No. 11th St., Springfield, Ill.—T. S. Wood, 220 9th Ave. N., Seattle 9; L. A. Nott, 1061 Howard St., San Francisco 3; H. W. Wittenburg, 1819 West 6th St., Los Angeles 57; Mountain States Machinery, 1526 Blake St., Denver 2; Frank Gorman, 1701 Texas St., El Paso; J. E. Redmond, 625 West Madison, Phoenix; R. E. McDonough, 829 Maryland Ave., Butte, Mont.; J. O. Malvin, 3101 N. 36th St., Boise, Ida.; R. L. Schoenberger, 811 S. W. 6th Ave., Portland 4; B. James Bergmann, 525 S. Grinnel Dr., Tucson; Gorman Eng., 1330-12th N. W., Albuquerque.**

**SANTA FE TANK DIVISION**, Fluor Prod. Co., 12000 E. Washington Blvd., Whittier, Calif.; 1819 W. 6th St., Los Angeles, and Equitable Life Bldg., San Francisco. Representatives: Maydwell & Hartzell, Inc., in following cities: 870 Tennessee St., San Francisco; 2318 N. W. Vaughn, Portland; 324 S. Second Ave., Phoenix; 306 Dexter Ave., Seattle; 121 S. Monroe, Spokane.

**SAUEREISEN CEMENTS CO.**, 1045 N. Canal St., Pittsburgh 15, Pa.—Montgomery Brothers in following cities: 1122 Howard St., San Francisco; 1053 So. Olive, Los Angeles 11; 911 Western Ave., Seattle; 1632 N. W. Johnson, Portland; 5103 N. Hawthorne, Spokane.

**SAYLOR & SON, FRANK D.**, 13095 Greeley, Detroit, Mich.—Allied Industries, 412 Seaton St., Los Angeles; E. A. Will, 534 First Ave. South, Seattle 4.

**SCHAUB ENGINEERING CO., FRED H.**, 2110 S. Marshall Blvd., Chicago, Ill.—Johnson Eng. Co., 534 20th St., Oakland 12; Frederick Co., West 915 Mallon, Spokane; Meco Acme Boiler Co., Inc., 2426 Commodore Way, Seattle 99; Crown Engineering Co., 838 S. La Brea Ave., Los Angeles 36.

**SCHAUER MFG. CORP.**, 4500 Alpine Ave., Rossmoyne (Cincinnati), Ohio—Barstow & Doran, T406 S. Grand Ave., Los Angeles; W. H. Connors Co., 375 Birch St., Denver; Sinai-Johnson, Inc., 845 Jessie St., San Francisco.

**SCHENECTADY VARNISH CO., INC.**, Congress and 9th Ave., Schenectady, N. Y.—Electrical Specialty Co., in following cities: 158 11th St., San Francisco 3; 2820 E. 12th St., Los Angeles 23; 2406 First Ave. South, Seattle 4; 2026 Arapahoe, Denver.

**SCHWAGER-WOOD CORP.**, 8024 S. W. 35th Ave., Portland, Ore.—Love Electric Co., 1914 Market St., Tacoma; Slaybaugh-Thompson Co., 100 West 13th Ave., Denver 4; A. B. Smedley, P. O. Box 67-C, Pasadena; Clarence W. Silver Co., 550 W. 7th South St., Salt Lake City 4; Western Power Products Inc., 2765 N. W. Nicolai St., Portland; Artwel Electric Inc., 1485 Bayshore Blvd., San Francisco.

**SCHMITT STEEL, INC.**, 2765 N. W. Nicolai, Portland 10, Ore.—Western Power Products Co., 2765 N. W. Nicolai, Portland 10.

**SEAMLEX, INC.**, 41 24th St., Long Island City, N. Y. —Belilove Co., 420 Market St., San Francisco.

**SECHRIST MFG. CO.**, 4990 Acoma St., Denver, Colo. —A. R. Parker Co., 420 Market St., San Francisco; Gordon Laursen, 1116 Dartmouth N. E., Albuquerque; Maddox Sales Co., 914 E. Third St., Los Angeles; Sterns Sales Co., Tacoma, Wash.

**SECODE CORPORATION** (Formerly Electrical Communications, Inc.), 555 Minnesota St., San Francisco 7, Calif.—King Moon Co., Woodland Hills, Calif.

**SECULATE**, 681 Market St., San Francisco, Calif.—Industrial Eng. and Equip. Corp., 2975 Wilshire Blvd., Los Angeles 5; Wrathall and Krusi, 681 Market St., San Francisco.

**SEEDORFF & CO., INC., A. P.**, Bell, Calif.—E. B. Cook Co., 1063 Howard St., San Francisco.

**SEELY INSTRUMENT CO., INC.**, 377 Fourth St., Niagara Falls, N. Y.—Circle Seal Supply Co., 4863 Telegraph Rd., Los Angeles 22; E. H. Severson Co., 5614 E. 59th St., Seattle 5.


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**SEL-REX CORP.**, 75 River Road, Nutley 10, N. J. Branch; 2054 Granville Ave., Los Angeles; C. R. Dalton Associates, 132 El Camino Real, San Carlos, Calif.

**SEQUOIA WIRE CO.**, 2201 Bay Road, Redwood City, Calif. – Branch: Burbank, Calif. Branch Offices: 816 W. 5th St., Los Angeles; 120 Montgomery St., San Francisco; 954 Stuart Bldg., Seattle; 405 South Main St., Salt Lake City; 706 Railway Exchange Bldg., Denver.

**SESSIONS CLOCK CO.**, 61 East Main St., Forestville, Conn.—Lee Arter Co., 5221 El Mirador Dr., Los Angeles; Bryan & Herbert, 231 Western Merchandise Mart, San Francisco; Maizels Co., 1633 N. W. 21st Ave., Portland, Ore.; Sam Maizels Co., Terminal Sales Bldg., Seattle 1.

**SHAKEPROOF DIVISION** of Illinois Tool Works, St. Charles Rd., Elgin, Ill.—Branch: 12917 Cerise Ave., Hawthorne, Calif.; D. J. Lundin & Co., 5504 University Way, Seattle; Miner and Associates, 115 Main St., El Segundo, Calif.

**SHALDA MFG. CO., INC.**, 156 W. Providencia, Burbank, Calif.—L. M. Baxter, 1238 N. W. Glisan, Portland, and 1016 1st Ave. S., Seattle; G. M. Howard, 1301 6th St., San Francisco; Jack Murphy Co., 1901 4th Ave., San Diego 1; Roy J. O'Donnell Co., 680 Delaware, Denver 4; Southwestern Sales Co., 6218 W. Indianola, Glendale, Ariz.

**SHALLCROSS MFG. CO.**, Selma, North Carolina. J. C. Van Groos Co., 21051 Costanso, Woodland Hills, Calif.; Arvin Bell, 385 E. Green St., Pasadena 1; C. B. Parsons & Co., 3028 First Ave., Seattle 1; van Groos Co., 1178 Los Altos Ave., Los Altos, Calif.

**SHANNON LUMINOUS MATERIALS CO.**, 7356 Santa Monica Blvd., Hollywood 46, Calif.—Leo Kaufmann, 72 Sacramento St., San Francisco; Commercial Paint Co., 1173 Harrison St., Seattle 9; Pacific Decorators & Supply, 1917 S. W. 1st Ave., Portland 1; Boise Blue Print Co., 1009 Idaho St., Boise; Hostetter Paint Co., 4122 E. Speedway, Tucson; Salt Lake Blue Print & Supply Co., 245 S. State St., Salt Lake City; Phil's Paint Spot, 131 W. Main, Missoula; Jay Displays, 228 B Street, San Diego.

**SHERMAN MFG. CO., H. B.**, 22 Barney St., Battle Creek, Mich.—John Carder Jr. Co., 1624 N. 1st St., Albuquerque, N. M.; Bill Powers, 2441 Foxdale Ave., Whittier, Calif.

**SHERMAN PRODUCTS, INC.**, 3200 W. 14 Mile Rd., Royal Oak, Mich.—J. W. Greenis, Zone Mgr., P. O. Box 481, San Francisco; Columbia Tractor & Implement Co., 2720 N. W. 29th Ave., Portland; Pacific Tractor & Impl. Co., 2512 Florida St., Richmond, Calif.; Intermountain Ford Tr. Sales Co., 703 W. Second South, Salt Lake City; Wymont Tractor & Equip. Co., 3907 First Ave. South, Billings; McCarty-Sherman Dist. Corp., 275 Mariposa St., Denver; Hight-Thompson, Inc., 4770 East 48th St., Los Angeles.

**SHURE-SET FASTENING SYSTEM**, 12117 Berea Road, Cleveland 11, Ohio—Reps.: T. V. Williams, 1689 Olive St., Eugene, Ore.; Robert H. Ernst, 3254 Grande Vista, San Bernardino, Calif.; Frank A. Mullen, 59 Sixth Ave., San Francisco. Distributors: Cascade Distributors, 1918 First Ave. South, Seattle 4; Thunderbird Sales, 2255 West McDowell, Phoenix; Landes, Zachery & Peterson, 275 Kalamath St., Denver; 153½ W. Second South St., Salt Lake City, 246 S. Nebraska St., Casper, Wyo., and 1609 Second St., N. W., Albuquerque.

**SHURITE**, 61 Hamilton, New Haven 8, Conn.—James J. Backer Co., 221 W. Galer St., Seattle 99; F. W. Moulthrop Co., 575 10th St., San Francisco 3; Howard M. Saul & Assoc., 5015 San Vicente Blvd., Los Angeles 19; A. J. Nelson Co., P. O. Box 5502, Denver.

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**SIERRA ELECTRIC CORP., 15100 S. Figueroa, Gardena, Calif.—The Sanderlin Co., 129 First Ave. W., Seattle, and 56 S. E. Belmont St., Portland; Stanley Sales Corp., 1122 Folsom St., San Francisco; Jack Murphy, 1901 4th Ave., San Diego; J. W. Reynolds Co., 1481 S. Main St., Salt Lake City; George E. Metcalf Co., 3044 Ash St., Denver; Gordon W. Laursen & Son, 1116 Dartmouth, N. E., Albuquerque. (See ad, p. 60, 103, 104)**

**SIERRA SWITCHBOARD CO., 1295 County Road, Belmont, Calif.**

**SIERRA TRANSFORMER CO.**, 8833 Miner St., Los Angeles, Calif.—The Baxter Co., 101 Kansas St., San Francisco; Bruce-Emmett Co., 830 S. E. Alder St., Portland 14; Alfred E. Linzer Co., 1507 Kapiolane Blvd., Honolulu 14, Hawaii.

**SIGNAL INDICATOR CORP.**, 42 Stewart Ave., Brooklyn, N. Y.—Jack Berman Co., 1141 S. La Cienega Blvd., Los Angeles; F. W. Moulthrop Co., 575 Tenth St., San Francisco; Burt Porter Co., 1209 Poplar Pl., Seattle.

**SIGHTMASTER CORP.**, 50 Aleppo St., Providence, R. I.—Raymond Vinson, P. O. Box 8363, Denver; Calrepco, 1417 Georgia St., Los Angeles; G. B. Ellis Sales Co., 3241 El Camino Real, Atherton, Calif.; Fred Haight Co., 3212 Eastlake Ave., Seattle.

**SILENT HOIST & CRANE CO.**, 841 63rd St., Brooklyn 20, N. Y.—Branch Offices: Cost Reduction Equipment Co., 5200 Chokemco St., South Gate, Calif.; Hamerslag Equipment Co., 110 Freeway Blvd., San Francisco.

**SILICONE DIV.**, Union Carbide Corp., 30 E. 42nd St., New York City, N. Y.—Branch Offices: 2770 Leonis Blvd., Los Angeles 58, and 22 Battery St., San Francisco 6.

**SILVRAY LIGHTING, INC.**, 100 W. Main St., Bound Brook, N. J.—Heintz & Wells, 1500 Westlake, Seattle; H. X. Sheeter, 1417 Georgia St., Los Angeles; L. J. Van Nostrand, 1400 N Street, Sacramento, Calif.; Smoot-Holman Co. (Licensee), Inglewood, Calif.

**SIMONDS MACHINE CO., INC.**, 260 Saxon Rd., Southbridge, Mass.—M. A. Stolaroff, 4614 Northridge Dr., Los Angeles.

**SIMPLEX CO., INC.**, 1139 N. MacArthur, Springfield, Ill.—Star Machinery, 241 Lander, Seattle 4; Thomas Electric Co., 549 W. 2nd St. S., Salt Lake City; International Electric Co., 5710 Santa Fe Ave., Los Angeles; Walter Corman, 7432 W. 80th St., Los Angeles.

**SIMPLEX TIME RECORDER CO.**, 26 S. Lincoln, Gardner, Mass.—Branch Offices: 933 W. Second St., Los Angeles; 47 Second St., San Francisco; 2315 N. W. Irving St., Portland; 906 Third Ave., Seattle; 434 W. Washington St., Phoenix; 43 W. Broadway, Salt Lake City; 1550 Broadway, Denver; 714 Idaho St., Boise; 303 S. Wolcott St., Casper, Wyo.

**SIMPLEX WIRE & CABLE CO., 79 Sidney St., Cambridge 39, Mass.—Branch Offices: Simplex Wire & Cable Co. of Calif., Garnett-Young & Co. Managers in following cities: 3775 S. Broadway, So. Los Angeles; 390 Fourth St., San Francisco 7; 1928 1st Ave. South, Seattle 4; 1238 N. W. Glisan St., Portland 9, and 1400 No. 32nd St., Phoenix; Krippner & Polley, 1166 Elati St., Denver 4; Conley Eng. Co., 165 S. 1st West St., Salt Lake City 1. (See ad, pp. 12, 13)**

**SIMPSON COMPANY**, 1060 E. 11th St., Oakland 6, Calif.—The Electric Corp., 145 9th St., San Francisco; 178 10th St., Oakland; 110 S. Aurora, Stockton; Lavenson A. Savasta, 586 6th St., San Francisco; Electrical Distributors, Rice St., San Jose; Smith & Thomas Co., 586 1st Ave. So., Seattle; Slakey Bros., Inc., 2145 Fitchburg Station, Oakland. Sold by leading jobbers all principal cities.

**SIMPSON ELECTRIC CO.**, 5200 W. Kinzie St., Chicago 44, Ill.—R. G. Bowen, 446 Broadway, Denver 3; D. H. Burcham, 510 N. W. 19th Ave., Portland 5; C. R. Lynch, 3307 Glendale Blvd., Los Angeles 39; W. J. Purdy, 312 Seventh St., San Francisco 3.

**SIMPSON MFG. CO., INC., MARK**, 32-28 49th St., Long Island City 3, N. Y.—Eddie Colman & Assoc., 1503 S. Maple Ave., Los Angeles 15; Bernard Cahn & Co., 420 Market St., San Francisco 11; Thomas J. Dugan, 605 N. Yaleton, West Covina, Calif.

**SIMS CO., INC., Erie, Pa.**—S. C. Pardee, 55 New Montgomery, San Francisco.

**SIRENO CO., INC., THE**, 214 William St., New York City 38, N. Y.—E. L. Buckley Co., 986 Harrison St., San Francisco; Ballou & Wright, 327 N. W. 10th Ave., Portland, and 1513 12th St., Seattle; AAA Fire Extinguisher Equip. Co., Phoenix; Spitzer Elec. Co., Albuquerque.

**SKIL CORP.**, 5033 Elston, Chicago 30, Ill.—Branch Offices: 2730 S. Broadway, Los Angeles; 285 S. Van Ness Ave., San Francisco; 818 John St., Seattle; 524 N. W. 6th Ave., Portland; N. 2226 Division St., Spokane; 4462 York St., Denver.

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SMOOT-HOLMAN COMPANY
INGLEWOOD, CALIFORNIA

**SKINNER ELECTRIC VALVE DIV.**, 95 Edgewood Ave., New Britain, Conn.—Western Control Equip. Co., 14615 Ventura Blvd., Sherman Oaks, Calif., and 3573 Pierce St., San Francisco 23, and 1400 N. 32nd St., Phoenix; Hydraulic & Air Equip. Co., 2316 N. W. Savier, Portland, and 2450 6th Ave., South, Seattle; Automatic Control & Equip. Co., Inc., 5750 Fecos St., Denver 21. Distributors: Haskel Eng. & Supply, 1236 S. Central Ave., Glendale 4, Calif.; The Rucker Co., 4700 San Pablo Ave., Oakland 8; Calif. Instrument Co., 351 Tenth Ave., San Francisco 3.

**SLATER ELECTRIC & MFG. CO., INC., 45 Sea Cliff Ave., Glen Cove, Long Island, N. Y.—Payne & Sloan, 1101 East 5th St., Los Angeles 13; Bruce-Emmett Co., 830 S. E. Alder, Portland 14, 1016 First Ave., S., Seattle, 5715 "D" St., Spokane, and 192 N. First E., Farmington, Utah; The Baxter Co., 101 Kansas St., San Francisco; Don Steimkamp, 936 St. Paul St., Denver 6.**

**SMITHCRAFT LIGHTING DIVISION**, 217 Everett Ave., Chelsea 50, Mass.—Fred D. Benz Co., 520 4th St., San Francisco; J. R. Fenning,, 2323 Second Ave., Seattle; C. A. Peterson Co., 784 E. 14th Pl., Los Angeles; John Elggren, 428 South West Temple, Salt Lake City; Easter-Owens Elec. Co., 4200 Fox St., Denver.

**SMITH-GATES CORP.**, New Britain Ave., Farmington, Conn.—Ed B. Schack & Co., 2216 First Ave., Seattle 1; John Price and Assoc., 2402 North Seaman, El Monte, Calif.

**SMOOT-HOLMAN CO., 321 N. Eucalyptus, Inglewood, Calif.—Branch Office and Warehouse: 55 Mississippi St., San Francisco. Representatives: J. R. Christensen, 247 E. 5th South St., Salt Lake City 3; Carleton J. Bunce, 3664 Charles St., San Diego, Calif.; M. P. Fenton, 1331 "T" St. Sacramento; F. C. Scharr, 1500 Westlake Ave. North, Seattle 9; Clay Barton, 218 Builders Exchange Bldg., Portland 4; Gordon Laursen, 1116 Dartmouth N. E., Albuquerque; Norman Ross, 4227 N. Monte Vista, Scottsdale, Ariz. (See ad, p. 61)**

**SNAP-ON TOOL CORP.**, 8028 28th Ave., Kenosha, Wis.—Branch: Oakland, Calif.

**SOAPSTONE DUCT CO., 3985 Beach Street, Oakland, Calif.—Maydwell & Hartzell, Inc., 870 Tennessee St., San Francisco; 427 W. Fifth St., Los Angeles 13; 2318 N. W. Vaughn, Portland 10; 306 Dexter Ave., Seattle 4; 121 S. Monroe, Spokane, and 324 S. 2nd Avenue, Phoenix. (See ad, p. 61)**

**SO-CAL ELECTRO PRODUCTS, INC.**, 4423 W. Jefferson Blvd., Los Angeles, Calif.—Sold by Graybar Electric Co. in all principal cities; Alwalt Company, 1706 Lapham Dr., Modesto, Calif; Gough Industries, 819 E. First St., Los Angeles.

**SOLA ELECTRIC CO.**, 4633 W. 16th St., Chicago 50, Ill.—Branch Offices: 3138 Olympic Blvd., Los Angeles; G. L. Bennis, 1485 Bayshore Blvd., San Francisco; Slaybaugh & Thompson, 100 W. 13th St., Denver.

**SOLAR ELECTRIC CORP.**, 121 Central Ave., Warren, Pa.—Cohn & Shane, Inc., 1323 Venice Blvd., Los Angeles. Branches at Denver, Seattle, Portland, San Francisco, Phoenix and Honolulu, Hawaii.

**SOLAR LIGHT MFG. CO.**, 400 N. Ashland Ave., Chicago 22, Ill.—Branch Office: 1849 Blake Ave., Los Angeles 8; C. A. Peterson Co., 784 E. 14th Place, Los Angeles 47; George M. Roth, 12910 S. E. Harold St., Portland 66; J. H. Stumph, 1000 Fourth Ave. South, Seattle.

**SOLUX CORP.**, 58-17 28th Ave., Woodside, L. I., New York—Sold through all recognized electrical wholesalers.

**SORGEL ELECTRIC CO., 838 W. National Ave., Milwaukee, Wis.—Artwel Electric, Inc., 1485 Bayshore Blvd., San Francisco 24; W. E. Starr, 1226 S. Atlantic Blvd., Los Angeles; Floyd H. Boyer, P. O. Box 1751, Denver 1; W. C. Osborn, P. O. Box 6506, Phoenix; Henry George Lehl, 14280 S. W. Upland Dr., Oswego, Ore. (See ad, p. 102)**

**SOUTHERN CAR & MFG. CO.**, P. O. Box 2312, Birmingham 1, Ala.—Earl S. Condon Co., 3450 Wilshire Blvd., Los Angeles; Slaybaugh & Thompson Co., 100 W. 13th Ave., Denver 4.

**SOUTHERN STATES EQUIPMENT CORP., Hampton, Georgia—Joseph C. Platt, 111 Bell St., Seattle; H. Lee Rawlings, 230 S. 4th West St., Salt Lake City; R. T. Lewis & Co., 747 Forest St., Denver; A. W. Graham, 604 E. 6th St., Clovis, N. Mex.; W. E. Kirk Co., 415 Wall St., Los Angeles 13; W. H. Eddy, P. O. Box 1428, Phoenix; John H. Ormond, 600 - 16th St., Oakland, Calif.; Carl F. Selby, Box 246, Lake Grove, Oregon.**

**SOUTHWEST MACHINE PLASTIC CO.**, 5419 McKinley Ave., Los Angeles 11, Calif.—W. D. Howze & Co., 5603 N. Figueroa, Los Angeles.

**SOUTHWIRE COMPANY**, Carrollton, Ga.—C. P. Crowley Co., 117 W. 9th St., Los Angeles 15; A. J. Nelson Co., Box 5502, Denver 17, Box 113, Sugarhouse Sta., Salt Lake City, Box 938, Albuquerque, and Box 904, Billings, Mont.; Ralph L. Mooney, 411 S. First St., Phoenix; A. W. Graham, 604 E. 6th St., Clovis, N. M.

**SPANG-CHALFANT DIV., NATIONAL SUPPLY CO.**, 2 Gateway Center, Pittsburgh. (See National Supply Co., Tubular Products Div.)

**SPANMASTER CRANE DIV.**, Jervis B. Webb Co., 9301 Reyo St., South Gate, Calif.

**SPARLING METER CO.**, 225 N. Temple City Blvd., El Monte, Calif.—Branch in San Francisco.

**SPARTAN ELECTRIC RADIATOR CORP.**, 52-55 74th St., Maspeth 78, N. Y.—Arne Carson, 2207 47th Ave. S. W., Seattle; Robert Betette, World Trade Center, Ferry Bldg., San Francisco; Weldon Kite, 3190 S. Lowell Blvd., Denver 19; Sam Hexter Assoc., 2414 S. Santa Fe Ave., Los Angeles.

**SPEEDEX MFG. CO.**, 400 S. Wyman St., Rockford, Ill.—H. Bailis, 851 Broadway, Denver 3; Dean MacDonald, 907 N. 67th St., Seattle; Cohn & Shane, Inc., 1323 Venice Blvd., Los Angeles; Syd Weinberg, 1721 E. Luke, Phoenix; Lory Fuchsmann, 1485 Bayshore Blvd., San Francisco; J. S. Morton and Arnold Goldstein, 1718 Broadway, Seattle; Sid Schieber, 1485 Bayshore Blvd., San Francisco.

**SPEEDWAY MFG. CO.**, Div. of Thor Power Tool Co., 1421 Barnsdale Road, La Grange Park, Ill.—Thor Power Tool Co., 611 E. Pike St., Seattle 22; 315 S. Van Ness Ave., San Francisco 3; 6200 Slauson Ave., Los Angeles 22, and 2704 W. 8th Ave., Denver 4.

**SPENCER THERMOSTAT CO.**, 34 Forest St., Attleboro, Mass.—(See Metals & Controls Corp.)

**SPERO ELECTRIC CORP.**, 20500 St. Clair Ave., Cleveland 17, Ohio—Pete Bach, 1233 N. W. 12th Ave., Portland; Lyle Heaton, 520 76th Ave. N. E., Bellevue, Wn.; Jim Shirreffs Co., 3601 S. Broadway Pl., Los Angeles; Hollis R. Johnson, 5528 Timberwolf Dr., El Paso; Western Associates, 128 E. Roosevelt, Phoenix; Ray Alexander, 940 S. Stout St., Blackfoot, Ida.; Arthur & Allen, 420 Market St., San Francisco.

**SPERTI-FARADAY, INC.**, 1322 E. Church St., Adrian, Mich.—Wm. Benndorf, 221 Camelback Rd., Phoenix; Leonard Slusser, 318 Dooley Bldg., Salt Lake City 1; W. W. Wheat & Son, 2219 4th Ave., Seattle 4; Robert M. Schow, 1709 W. 8th St., Los Angeles 17; Gaer Sales, 1223 Quivas St., Denver 4; George R. Magnes Co., Inc., 44 Berry St., San Francisco.

**SPRING CITY ELECTRICAL MFG. CO.**, Hall & Main Sts., Spring City, Pa.—N. R. Schultz Co., 4227 Airport Way, Seattle 4; Murphy-Hain Co., 2133 Bay St., Los Angeles 21; Fred E. Staible & Sons, 2046 Arapahoe St., Denver 5; George E. Honn Co., 420 Market St., San Francisco 11.

**STACKPOLE CARBON CO.**, Stackpole St., St. Marys, Pa.—Branch Offices: Pacific Coast Manager, J. E. Holben, 2117 Poppy Dr., Burlingame, Calif.; S. L. Spraggins Co. 914 S. Robertson Blvd., Los Angeles 35; Burt Porter Co., 1209 Poplar Place, Seattle.

**STANDARD CARBON CO.**, Box 49, Steubenville, Ohio—Wesco Electrical Distributors, 184 S. Western Ave., Los Angeles 4; Roy Silverman, 1316 N. Laurel Ave., Los Angeles 46.

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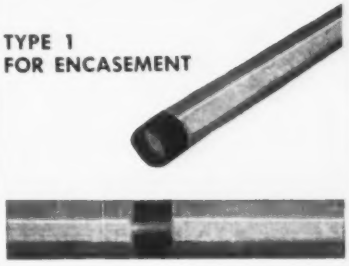
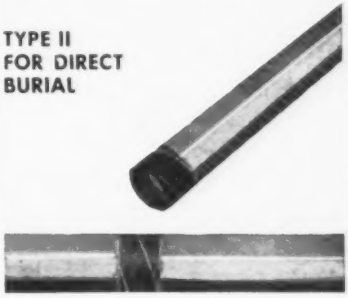
New Soapstone
OCT-O-DUCT
For Both Encased and Direct Burial Installation

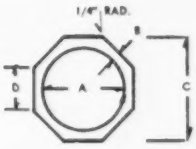
TYPE 1
FOR ENCASEMENT



Now you can lay long-lasting economical Soapstone OCT-O-DUCT faster and easier than ever. No spacers are required. The new spiral-wound, water resistant couplings are ideal for encased installations. The new polyethylene couplings are ideal for direct burial. Write for details of our complete line of duct, and accessories.

TYPE II
FOR DIRECT
BURIAL






OCT-O-DUCT DIMENSIONS (Inches)

| A (ID) Duct size | B (Wall) | | C (Width) | | D (Side) | |
|---|---|---|---|---|---|---|
| | Type I | Type II | Type I | Type II | Type I | Type II |
| 2 | .40 | .40 | 2.8 | 2.8 | 1.25 | 1.25 |
| 3 | .40 | .40 | 3.8 | 3.8 | 1.65 | 1.65 |
| 3½ | .40 | .50 | 4.3 | 4.5 | 1.70 | 1.75 |
| 4 | .40 | .50 | 4.8 | 5.0 | 2.0 | 2.1 |
| 5 | .50 | .625 | 6.0 | 6.25 | 2.5 | 2.55 |

In addition to above standard OCT-O-DUCT we can manufacture special ducts to order.

SOAPSTONE DUCT COMPANY
3985 Beach St., Oakland 8, Calif.

Distributed in the West by
MAYDWELL & HARTZELL, INC.
San Francisco • Los Angeles • San Diego
Phoenix • Portland • Seattle • Spokane

"light ideas"

# ..from virden

## to add plus profits to your fixture sales

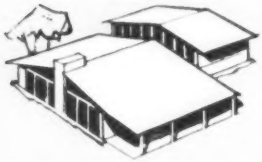
### For Traditional Homes

**V-1476** One of six gorgeously styled Colonial chandeliers. Handcut crystal and gleaming brass to add a brilliant touch to any room.

**V-6051** Authentic Early American in a pulldown. Polished brass with white shade. Opal chimney has star decorations.

**V-1499** Quiet dignity, warm hospitality is exemplified in this traditional design. In 6, 4, 3, and 2-light models, each hand-fashioned from solid brass.

### For Contemporary Homes



**V-1193** An unusually versatile 3-light cluster . . . use it in living rooms, dining areas, family rooms, anywhere you need a smart modern accent.

**V-1630** Modern blending of white imported plastic and polished brass, an exciting accent wherever it is used.

**V-4465** Gleaming brass and satin white, in a modern blending.

**V-6200** Perforated downlight with crystal lens. Polished brass. Excellent accent light.

**V-7940** Give your patios, porches, entranceways extra sales appeal with this outdoor wall lantern.

### For Transitional Homes

**V-1791** The lovely charm of polished copper and black in the popular pulldown style.

**V-1860** A touch of brilliance in an exciting 6-light chandelier. Use it with matching ceiling and wall lamps for a wonderful effect.

**V-6840** Add a touch of glamour with this bathroom fixture. Use it singly or in pairs.

**V-5880** Lift your halls and entryways out of the ordinary with this graceful design. Has matching wall unit and 5-light chandelier.

**V-3920** Give your bedroom the look of richness. Imported glass has crystal beads, polished brass trim.

Your Virden distributor has the complete line of Virden "light idea" fixtures on display now.

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VIRDEN Lighting

**virden LIGHTING**

A Division of the John C. Virden Company
Cleveland 3, Ohio
Member American Home Lighting Institute
In Canada, John C. Virden, Ltd., Toronto, Ontario

**SQUARE D COMPANY, Western Division, 4335 Valley Blvd., Los Angeles 32, Calif.—Branch Offices and also Factories: 211 Industrial St., San Francisco 24; 830 Corwin Pl., Seattle 44; 711 S. E. Ankeny St., Portland 12, W. 915 Mallon, Spokane, 1331 "T" St., Sacramento 14, Rm. 604, Calif. Theatre Bldg., San Diego 1, Echo & Divisadero, Fresno, 677 Alcott St., Denver 4, Rm. 30, 455 E. 4th St., Salt Lake City, and 804 E. Yandell Dr., El Paso, Texas. Agents: Electrical Linzer, 1507 Kapiolani, Honolulu, Hawaii. Sales Rep.: John P. Bagoy, 611 11th Ave., Anchorage, Alaska. (See ad, p. 63)**

**STANDARD ELECTRIC EQUIPMENT,** 100 Wilkins Ave., Port Chester, N. Y.—James G. Hope, Jr., 2720 S. San Pedro, Los Angeles.

**STANDARD ELECTRICAL PRODUCTS CO.,** 2240 E. Third Street, Dayton 3, Ohio—Earl S. Condon Co., 3450 Wilshire Blvd., Los Angeles; Wallace and Wallace, Bendix Bldg. Los Angeles; Fred H. Height, 3212 Eastlake Ave., Seattle; Allen I. Williams, 2263 S. Albion St., Denver 22.

**STANDARD ELECTRIC TIME CO., THE,** 113 Logan St., Springfield, Mass.—Branch Offices: 16 Beale St., San Francisco; 5405 Sheila St., Los Angeles; New World Life Bldg., Seattle; 5606 S. State St., Salt Lake City; 1925 Blake St., Denver; 1725 N. E. 44th St., Portland; K. M. Ryals Co., 461 Market St., San Francisco 5.

**STANDARD ENGINEERING & MFG. CO.,** 3755 Blake St., Denver, Colo.

**STANDARD INSTRUMENT CORP.,** Div. of Heat-Timer Corp., 657 Broadway, New York City 12—James L. Kearns Co., 6055 N. E. Glisan St., Portland; Burton Industrial Sales, 24463 Hawthorne Ave., Torrance, Calif.; Electronic Eng. Associates, 1295 Laurel St., San Carlos, Calif.

**STANDARD OIL CO. OF CALIF.,** 200 Bush St., San Francisco, Calif.—Sales Offices: Oakland, Los Angeles, Long Beach, San Diego, Bakersfield, Sacramento, Fresno, Phoenix, Portland, Salt Lake City, Spokane and Seattle.

**STANDARD TRAILER CO.,** 415 Park St., San Leandro, Calif.—T. A. Ford Co., 320 S. San Marino Ave., San Gabriel, Calif.; McCabe Powers Body Co., 525 Cedar St., Berkeley; Utility Body Co., 1530 Wood St., Oakland.

**STANDARD TRANSFORMER CO.,** 120 Dana St., N. E. Warren, Ohio—W. E. Kirk Co., 415 Wall St., Los Angeles 13; J. C. McDougall, 520 1st Ave. South, Seattle 4; A. J. Elggren & Sons, 212 West 4th So., Salt Lake City; Mark G. Mueller Co., 1644 Blake St., Denver 2; J. H. Ormond Co., 600 16th St., Oakland 6; A & A Supply Co., 114 Morningside, Albuquerque.

**STANLEY ELECTRIC TOOLS,** 480 Myrtle St., New Britain, Conn.—7141 S. Paramount Blvd. Rivera, Calif.; 105 Second Ave. N., Seattle; 681 Market St., San Francisco.

**STANLEY MAGIC DOOR,** Div. of The Stanley Works, 195 Lake St., New Britain, Conn. — Consolidated Services, Inc., 423 3rd Ave. W., Seattle 99; Gamble-Hawkins Co., 1617 N. W. 14th Ave., Portland 9; A. H. Heinzman Agency, 1152 Holly St., San Carlos; The Hay Agency, 150 S. Doheny Dr., Beverly Hills; T. C. Stayner & Co., 60 E. 4th St., Salt Lake City 1; Builders Service, Inc., 1221 Bannock St., Denver 4; Hay Agency, 4129 E. Campbell, Phoenix.

**STAR-A ELECTRIC MFG. CO.,** 269 Meserole St., Brooklyn, N. Y.—Collins-Gillette Co., 2501 Crestmont Place, Seattle; W. B. Roth, 1315 Jasmine St., Denver.

**STAR EXPANSION INDUSTRIES CORP.,** Pleasant Hill Rd., Mountainville, N. Y.—Branch Offices: 1103 Airport Blvd., South San Francisco; 5821 E. Beverly Blvd., Los Angeles; 3048 N. 27th Ave., Phoenix; 4901 E. 38th Ave., Denver; 2215 Ranier Ave., Seattle.

**STAR LIGHTING FIXTURE CO.,** Subsidiary of Thomas Industries, Inc., 410 South 3rd St., Louisville, Ky. —A. O. Grotenhuis, Western Sales Mgr., 6423 E. Washington Blvd., Los Angeles 22, Calif.; W. T. Tilley, 1421 Pontiac Ave., Denver; K. D. Cummings, 15511 S. E. 27th, Bellevue, Wash.; Jerry D. Long, 615 Jasmine Ave., Corona Del Mar, Calif.; Rollo D. Hittle, 16408 Septo St., Sepulveda, Calif.; Donald R. Watson, 2490 Eucalyptus Way, San Bruno, Calif.

**STATES COMPANY, THE,** 19 New Park Ave., Hartford, Conn.—Western Representatives: George E. Honn Co., 420 Market St., San Francisco; Arthur E. Booth Co., 265 S. Alexandria Ave., Los Angeles 4; G. L. Hoffman, 3007 S. W. Nebraska St., Portland 19; Mountain States Machinery Co., 1526 Blake St., Denver; J. E. Redmond Co., 625 W. Madison St., Phoenix; F. W. Gorman, P. O. Box 223, El Paso; Conely Eng. Co., 165 South 1st West St., Salt Lake City.

**STATE WIRE AND CABLE CORP.,** S. River St., Cocksackie, N. Y.—Pete Bach Electric, 1233 N. W. 12th Ave., Portland 9.


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765 Maywood Lane


**STA-TITE MFG. CO., 2000 Wyandotte, Kansas City, Mo.—James C. Pope, Jr., 2720 S. San Pedro St., Los Angeles; Jim Dawson Co., 661 Delaware St., Denver. (See ad, p. 63)**

**STA-TITE CO.,** 2000 Wyandotte, Kansas City, Mo.—James C. Pope, Jr., 2720 S. San Pedro, Los Angeles; Jim Dawson, 661 Delaware St., Denver.

**STA-WARM ELECTRIC CO.,** 503 N. Chestnut St., Ravenna, Ohio—Montgomery Brothers in following cities: 1122 Howard St., San Francisco, 911 Western Ave., Seattle, 1053 S. Olive, Los Angeles, 1632 N. W. Johnson, Portland, and 5103 N. Hawthorne, Spokane.

**STEARNS MAGNETIC PRODUCTS,** 635 S. 28th St., Milwaukee, Wis.—L. F. Hoag, National Equip. Co., 35 E. Pierson, Phoenix; Willard Eng. Co., 2709 S. Hill St., Los Angeles; Transmission Eng. Co., 427 Bryant St., San Francisco; Schloss & Shubart, 1626 Wazee St., Denver; John H. Marvin Co., 422 1st Ave. W., Seattle, and 6106 N. W. 18th Ave., Portland; National Equip. Co., 101 W. Second St., Salt Lake City.

**STEBER MFG. CO.,** 2700 Roosevelt Road, Broadview, Ill.—Hodges & Glomb, 921 Bryant St. San Francisco 3; Murphy-Hain Co., 2133 Bay St., Los Angeles; Northwestern Agencies, 4130 First Ave. South, Seattle 4; Allen B. Carpenter Co., 1314 Wazee St., Denver 4; Marshall James, 2941 N. W. Quimby, Portland; International Exporters Corp., 301 S. Howard Blvd., Los Angeles 5 (Export).


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**STEELDUCT CO.,** 335 Market, Youngstown, Ohio —Kenneth Anderson Co. in following cities: 123 S. Myer St., Los Angeles; 422 S. 7th Ave., Phoenix; 1617 Fourth Ave., San Diego; F. M. Nicholas Co., 714 Harrison St., San Francisco; L. S. Reed & Co., 1018 Lawrence St., Denver; Smith & Thomas Co., 568 1st Ave., So., Seattle 4, and 5202 N. E. 73rd, Portland.

**STEEL & TUBES DIV.,** Republic Steel Corp. (See Republic Steel Corp.)

**STEMCO MFG. CO.,** 4275 Forrest, Denver, Colo.—Through electrical and plumbing wholesalers.

**STEMM BROS., INC.,** 14th and Commercial, Leavenworth, Wash.—Nelson Equipment Co., 5251 McLoughlin Blvd., Portland; Stanco Mfg. & Sales, 1931 Pontius Ave., Los Angeles; Stratton Equipment, Ltd., 1305 W. Georgia St., Vancouver 5, B. C. Export only.

**STEPHENS-ADAMSON MFG. CO.,** 274 Ridgeway Ave., Aurora, Ill.—Branch Offices: 2227 E. 37th St., Los Angeles; 145 Mission St., San Francisco; 709 Jos. Vance Bldg., Seattle; 73 S. Main St., Salt Lake City, and Suite 2-B, 1625 E. Camelback Rd., Phoenix.

**STEPHENS MFG. CO., M., INC.,** 814 E. 29th St., Los Angeles, Calif.—The McLoughlin Co., 811 E. 14th Place, Los Angeles, 3147 N. 7th Ave., Phoenix; Keeler-White Co., 322 N. W. 4th Ave., Portland, and 1041 Sixth Ave. So., Seattle; Stanley Sales Corp., 1122 Folsom St., San Francisco 3; J. W. Reynolds, 1481 S. Main, Salt Lake City; Gregg N. Cloos, 977 Jackson St., Denver.

**STERLING ELECTRIC MOTORS, INC.,** 5401 Telegraph Road, Los Angeles 22, Calif.—District Office: R. L. Hadley, 383 Brannan St., San Francisco; Edward A. Hurley, 1712 First Ave. South, Seattle; C. C. Conley, Mgr., 738 N. W. Glisan St., Portland; O. M. MacNaMa, 5401 Telegraph Rd. Los Angeles. Reps.: F. E. Crossman, 806 Beach Ave., Vancouver, B. C., Canada; John W. Reynolds, 1481 S. Main St., Salt Lake City; Clyde P. Elliott, 661 Delaware St., Denver 4.

**STERLING MFG. CO.,** 7201 Wentworth Ave., Cleveland 2, Ohio—Cohn & Shane, Inc., 1323 Venice Blvd., Los Angeles.

**STERLING VARNISH CO.,** Haysville Borough, Sewickley, Pa.—Western Fiberglas Co., 739 Bryant St., San Francisco 7; 4423 Fruitland Ave., Los Angeles 58, and 1915 First Ave. So., Seattle 4; Zork Hardware, El Paso, Texas.

**STEVENS MFG. CO., INC.,** P. O. Box 1007, Mansfield, Ohio—Paul H. Potter & Associates, 2390 Foothill Blvd., Pasadena, Calif.

**STEWART STAMPING CO.,** 630 Central Park Ave., Yonkers 4, N. Y.—G. M. Howard Associates, 1282 Folsom St., San Francisco 7.

**STICHT CO., INC., HERMAN H.,** 27 Park Place, New York City—James L. Kearns Co., 6055 N. E. Glisan St., Portland 16; T. R. Routh Co., 1209 Capuchino Ave., Burlingame, Calif.; The Kennematt Co., 14637 Bessemer St., Van Nuys, Calif.

**STONCO ELECTRIC PRODUCTS CO.,** 333 Monroe Ave., Kenilworth, N. J.—The McLoughlin Co., 811 E. 14th Pl., Los Angeles; Bruce-Emmett Co., 830 S. E. Alder, Portland; Stewart Holmes, N. 5213 Drumheller, Spokane; W. T. R. Saari, 1016 1st Ave. S., Seattle; Max D. White, 410 Wall St., Salt Lake City; R. D. Florance & Assoc., 2052 Humboldt St., Denver; Stanley Sales Corp., 1122 Folsom St., San Francisco.

**STORACK** (Am. Steel & Iron Works), 5801 S. Lowe Ave., Chicago, Ill.—West Pacific Sales Co., 1825 S. W. 6th Ave., Portland, and 127 W. Mercer, Seattle; Electric Sales Corp., 211 Umatilla, Denver; Frank Peck Specialty Co., 347 S. Clarence St., Los Angeles.

**STROMBERG-CARLSON,** Div. of General Dynamics Corp., Special Products Div., 1400 N. Goodman, Rochester, N. Y.—Branch: 5415 York Blvd., Los Angeles; Lloyd Marsh Agencies, 2601 First St., Seattle.

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**STROMBERG TIME CORP.**, 135 S. Main St., Thomaston, Conn.—Branches: 420 Market St., San Francisco 11, and 659 S. LaBrea Ave., Los Angeles 36. Exclusive Dealers: Eicher & Co., 5 W. Harrison, Seattle 99; E. L. Taylor, 2011 Glenarm St., Denver; Controls Eng. & Dist., Inc., 1150 East 5th South, Salt Lake City 10; New Mexico Sound Specialties, 3418 Lomas Blvd., N. E., Albuquerque; Northern School Supply, Great Falls, Mont.; Kelton Audio Equipment, 808 N. First St., Phoenix; Time and Sound Co., 2706 Main St., Riverside, Calif.

**STRUTHERS-DUNN, INC.**, Lamb's Road, Pitman, N. J. —A. W. Nash Co., 2112 S. Atlantic Blvd., Los Angeles; Eicher & Co., 5 West Harrison St., Seattle; Eichorn & Melchior, 749 Bryant St., San Francisco 7. Western Electro Mechanical, 300 Broadway, Oakland.

**STURDY LANTERN MFG. CO., INC.**, 41 "P" St., South Boston Mass.—John C. Kerr, 576 Moraga Highway, Orinda, Calif.

**SUBOX, INC., Foot of Lawton, Hackensack, N. J.—Wrathall & Krusi, 1044 Monadnock Building, San Francisco; R. E. Cunningham & Son, 530 West 6th St., Los Angeles; William J. Cottrell and Associates, 4000 S. W. Macadam Ave., Portland 1; W. R. Hendroy Co., Smith Tower, Seattle; Ambler Co., 500 Kalamath St., Denver 1.**

**SUFLEX CORP.**, 33-40 57th St., Woodside 77, New York—Tri-State Supply Corp., 544 S. San Pedro St., Los Angeles; 554 Bryant St., San Francisco, and 322 Occidental Ave., Seattle.

**SUNBEAM LIGHTING CO.**, 777 E. 14th Place, Los Angeles, Calif.—Humber & Walker Co., 314 12th St., San Francisco 3; Robert E. Jones, 444 Dexter-Horton Bldg., Seattle 4; McGillan Sales Co., Box 4013, 1100 Hermosa Dr. S.E., Albuquerque; John Schulter, 411 Weatherly Bldg., Portland; David M. Merrill, 192 N. First East, Box 573, Farmington, Utah; Anson Boyd, 4141 La Gunita Court, Sacramento, Calif.; Jack Murphy, 1901 4th Ave., San Diego; Wilson C. Osborn, 7116 No. 13th, Phoenix.

**SUNRAY ELECTRIC CORP.**, Warren, Pa., (See Interelectric Co.)

**SUNSHINE SCIENTIFIC INSTRUMENT**, 1810 Grant Ave., Philadelphia 15, Pa.—Wm. J. Cottrell & Assoc., 4000 S. W. Macadam Ave., Portland 1; D. B. Cole & Co., 557 E. Walnut St., Pasadena, Calif.; Instruments for Measurements, 251 S. Murphy Ave., Sunnyvale, Calif.

**SUNWARM, INC.**, 1601 Jared Drive, Kingsport, Tenn. Duncan, 1901 E. Montecito, Phoenix; Graybar Elec. Co., Wazee Market, Denver.

**SUPER TOOL CO.**, 21650 Hoover Road, Detroit, Mich. —Branch: 5210 San Fernando Road, Glendale 5, Calif.

**SUPERIOR CABLE CORP., P. O. Box 480-A, Hickory, N. C.—Maydwell & Hartzell, Inc., in the following cities: 427 W. 5th St., Los Angeles; 324 S. 2nd Ave., Phoenix; 870 Tennessee St., San Francisco; 2318 N. W. Vaughn St., Portland; 306 Dexter Ave., Seattle. (See ad, p. 64)**

**SUPERIOR CARBON PRODUCTS, INC.**, 9115 George Ave., Cleveland, Ohio—Sales Office: Joseph D. Costello Co., 2107 Seventh Ave., Los Angeles 18.

**SUPERIOR ELECTRIC CO.**, 83 Laurel, Bristol, Conn. —Branch Offices: 14663 Titus St., Van Nuys; 2881 El Camino Real, Redwood City; 810 3rd Ave., Seattle.

**SUPERIOR INSULATING TAPE CO.**, 3100 Lambdin Ave., St. Louis 15, Mo.—The Baxter Co., 101 Kansas St., San Francisco; Roy J. O'Donnell Co., 680 Delaware, Denver 4; Elkins Elec. Agency, 235 S. Alameda St., Los Angeles 12; R. W. Rieder Co., P. O. Box 4947, Portland 13.

**SUPERIOR PORCELAIN CO.**, 931½ Market St., Parkersburg, West Va.—Eckert-Lloyd Co., 1950 Naomi Ave., Los Angeles; Albert S. Knight Co., 3010 Western Ave., Seattle; Thomas D. Noble Co., 210 12th St., San Francisco.

**SUPERIOR SWITCHBOARD & DEVICES CO.**, 410 Schroyer S. W., Canton, Ohio—T. S. Wood, 220 9th Ave. N., Seattle; L. A. Nott, 1061 Howard St., San Francisco; Robt. A. Young & Co., 3901 San Fernando Road, Glendale, Calif.; Carlos W. Stone, 2003 Parley's Blvd., Salt Lake City; Franklin Sales Co., 2149 So. Clermont Ave., Denver; Electric Locator & Sales, 8045 Bellamah Ave., N.E., Albuquerque.

**SUPREME LIGHTING CO.**, 600 E. Turner, Los Angeles, Calif.—Guy de Leuze & Associates, 1923 Bryant St., San Francisco; The Sanderlin Co., 129 First Ave. W., Seattle 99, and 56 S.E. Belmont, Portland; Mel Long, 422 S. 7th St., Phoenix; Bach Associates, 155 Jackson St., Denver 6.

**SUPRO LUX MFG. CO., INC.**, 406 E. 161st St., New York City 51—Montroy Electrical Supply Co., 4165 Beverly Blvd., Los Angeles; Peterson Supply Co., 20 N. E. 20th Ave., Portland, and 480 Fifth St., San Francisco.

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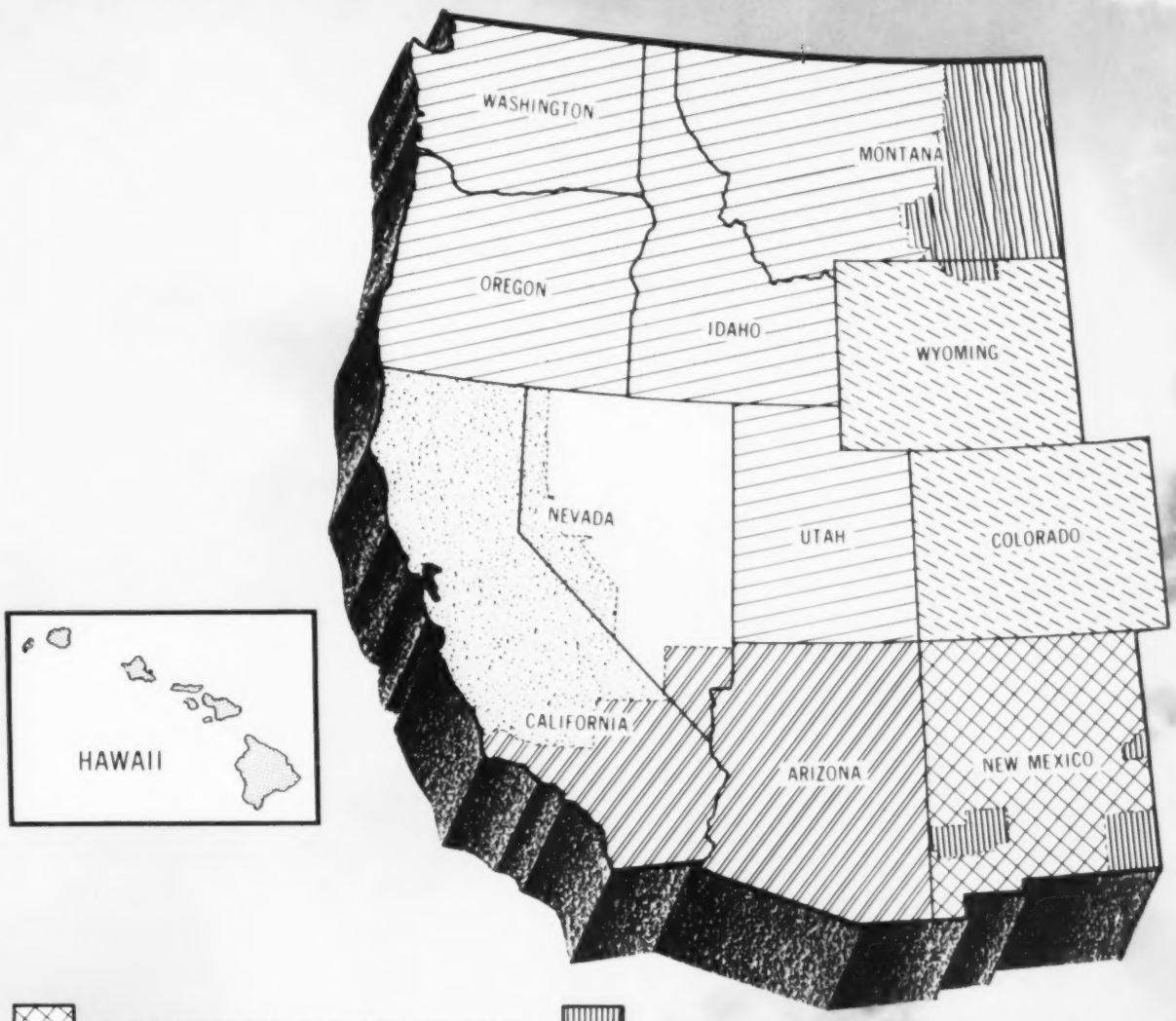


- C. B. ANDERSON ELECTRIC COMPANY
- BERGSTROM-VERBARG COMPANY
- EARL S. CONDON COMPANY
- PETERSON COMPANY
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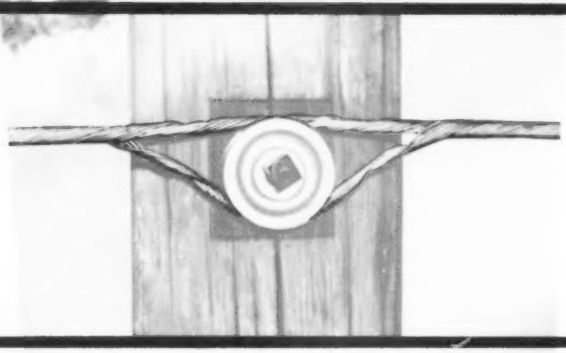
- SHAFFER AND NELSON, INC.
- HONOLULU ELECTRICAL PRODUCTS COMPANY, LTD.

* addresses on the back page of this catalog

TRADE MARK "ARMOR-GRIP"

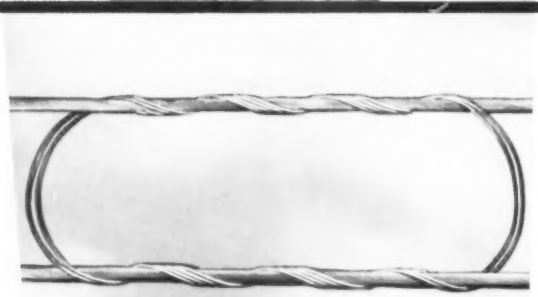
## Preformed™

**ARMOR-GRIP SUSPENSION** (AGS) eliminates failure by eliminating stress concentration. The conductor is cushioned in a cradle of aluminum-reinforced neoprene. Uniformity of application reduces installation costs. Available for ACSR Conductors in sizes PENGUIN (4/0 : 6 x 1) through FALCON (1,590,000 CM : 54 x 19); and for All-Aluminum Conductors (4/0 : 7-Wire) through (1,590,000 CM : 61-Wire).



## Preformed™

**TWIN-GRIP SUSPENSION** is the safest, simplest and most economical method of satisfactorily supporting static wires on H-frames or towers with components that are compatible with the static wire material—including Alumoweld. Eliminates wear and abrasion, and gives superior vibration protection to the static wires. Fast, easy installation with uniformity of application every time.



## Preformed™

**SPACERS** maintain design spacing between two, three or four bundled conductors with corona-free characteristics at operating voltage. Inhibits Aeolian vibration. Easy, fast, tool-free applications. Noise-free performance. In extensive laboratory testing, Spacers have withstood the rigors of vibration amplitudes exceeding double the normal field conditions for durations up to 50 million cycles with no deteriorating effects to either Spacer or conductor.

## Preformed™

**ARMOR RODS** reinforce conductors at support points to protect them from damage caused by vibration, chafing, arc over, concentrated clamp and tie-wire stresses. Economical and easy application can be made hot or cold; and they are reusable.

| Preformed Armor Rods are made of: | For Use On: |
|---|---|
| Aluminum Alloy | ACSR Distribution Conductors |
| | ACSR Overhead Ground Wire |
| | ACSR Transmission Conductors |
| | All-Aluminum Distribution Conductors |
| | All-Aluminum Transmission Conductors |
| | Kaiser AAAC and Reynolds 5005 Aluminum Alloy Conductors |
| | "Compresto" ACSR Conductors |
| | "Compresto" All-Aluminum Conductors |
| Galvanized Steel | ACSR Conductors |
| | Galvanized Steel Strand |
| Bronze or Copper Covered Steel | Copper-Covered Steel and Copperweld-Copper Conductors |
| | Copper Conductors |
| Alumoweld | Alumoweld Conductors |
| | Alumoweld Overhead Ground Wires |
| | Alumoweld Strands |

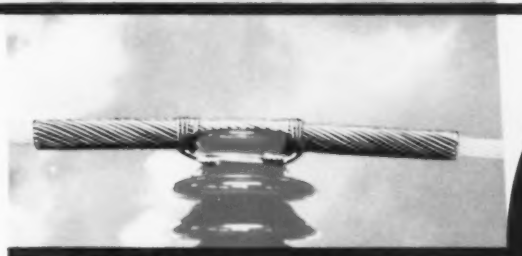
**Ask your Preformed Representative for complete specifications and price information on these Preformed products.**

## Preformed™

**SPIRAL VIBRATION DAMPER** is effective over the full range of vibration frequencies on smaller size transmission or rural distribution type conductors in sizes No. 6 to 4/0.

## Preformed™

**LINE GUARDS** are used to protect conductors from flash-over; and abrasion from clamps and tie-wires. They provide economical protection in applications where vibration is not a problem, on post top, pin or clamp top insulators. Preformed Line Guards are made of Aluminum Alloy for use on the following conductors: ACSR, All-Aluminum, Kaiser AAAC and Reynolds 5005 Aluminum Alloy.

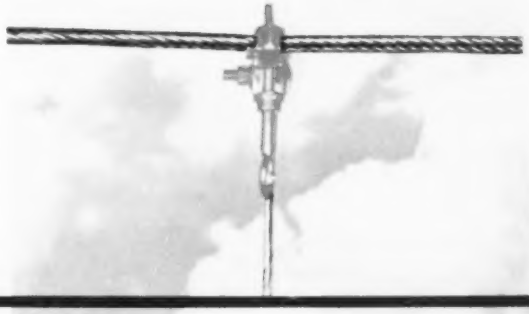


Ask your Preformed Representative for complete specifications and price information on these Preformed products.

## Preformed™

**TAP ARMOR** for cold or hot line application protects conductors from wear and flash-over damage under hot line taps; increases diameter of conductor to improve fit of clamp.

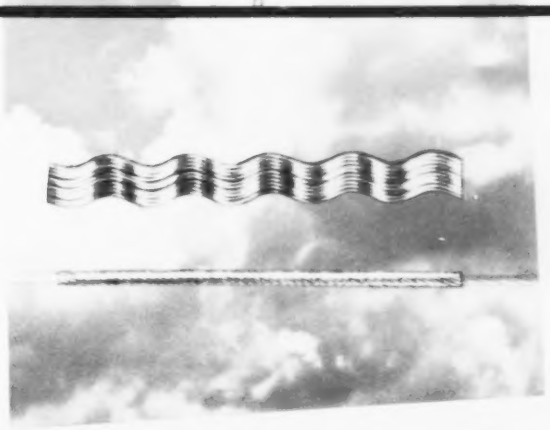
| Preformed Tap Armor is made of: | For Use on Conductors made of: |
|---|---|
| Aluminum Alloy | ACSR |
| | All-Aluminum |
| Copper Covered Steel | Copper |
| | Copper Covered Steel |
| Bronze | Copper |
| | Copper-Covered Steel |



## Preformed™

**PATCH RODS** permit rapid repair of damage to conductors. They restore **full** mechanical strength and electrical conductivity (for damage not exceeding 25% of the outer strand layer).

| Preformed Patch Rods are made of: | For Use on Conductors made of: |
|---|---|
| Aluminum Alloy | ACSR |
| | All-Aluminum |
| Bronze | Copper |



Products on these pages are patented—U. S. Patent Nos. 2,761,273, 2,722,393 and 2,609,653; other Patents Pending

*Preformed*™

**ALUMINUM-GRIP DEAD-ENDS** provide the most modern means of securing transmission and distribution conductor, ground strand, and service drops. Fast, easy, tool-free application reduces costs. Simple boltless design streamlines appearance; helical legs distribute stresses uniformly over a wide area of conductor. Preformed Aluminum-Grip Dead-Ends are made for:

- ACSR Transmission Conductor
  ACSR Distribution Conductor
- All-Aluminum Transmission Conductor
- All-Aluminum Distribution Conductor
- Aluminum or ACSR Bare-Neutral Triplex Service Drop Cable
- Kaiser AAAC and Reynolds 5005 Aluminum Alloy Conductors

*Preformed*™

**NEOPRENE COATED DEAD-ENDS** provide positive grip without bolts, clamps or jaws; and uniformily distribute radial pressure over entire surface area of jacketed conductor. Eliminate the possibility of conductor corrosion caused by stripping conductor jacket. Prevent wear and abrasion. For use on Neoprene and Polyethylene Weatherproof AA and ACSR conductors.

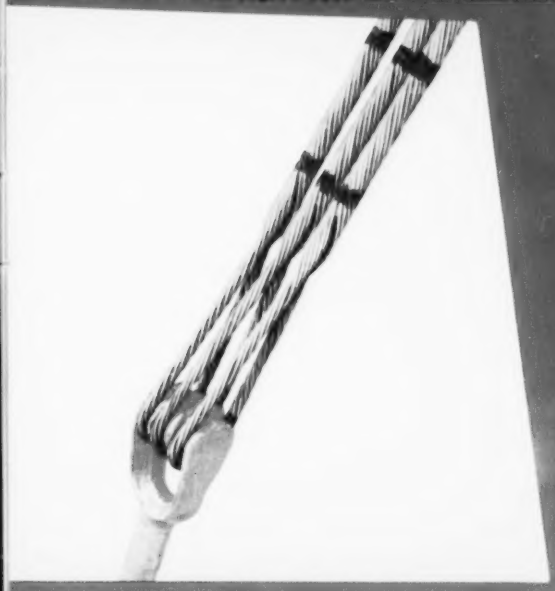
*Preformed*™

**GUY-GRIP dead-ends (Standard Loop)** provide the Modern Twist in Guying at the top, breaker and anchor. The only accessories which develop the full rated breaking strength of the guy strand, including EHS. GUY-GRIP dead-ends are applied entirely by hand—save time, trouble and strand. May be re-used. Made in materials compatible with the guy strand: Galvanized Steel, Copper-Covered Steel, Bronze, Aluminized Steel, Stainless Steel, and Alumoweld.

TRADE MARK "GUY-GRIP"

Ask your Preformed Representative for complete specifications and price information on these Preformed products.

Products on these pages are patented—U. S. Patent Nos. 2,761,273 and 2,744,707 ; other Patents Pending



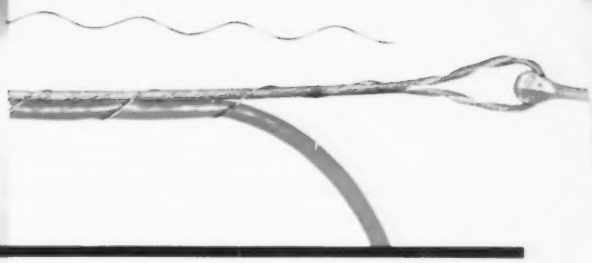
Ask your Preformed Representative for complete specifications and price information on these Preformed products.

## *Preformed*™

**GUY-GRIP dead-ends (Cabled Loop)**...the same dependable product with the new stranded loop which provides greater adaptability for multiple guying and easier tensioning for down guying and span guying. Cabled Loop GUY-GRIP dead-ends are currently made for strand sizes 5/16", 3/8", 7/16" and 1/2" in the following materials: Galvanized Steel (Utility Grade, High Strength and Extra-High Strength), Copper-Covered Steel (including Type M), Calsun Bronze, Aluminized Steel, Stainless Steel, and Alumoweld.

## *Preformed*™ LASHING RODS

Quick, neat way to lash cables to messenger without clips, clamps or spinners. No tools required. Rods are spring tempered; may be re-used. Preformed Lashing Rods are made of Galvanized Steel or Copper-Covered Steel.



## *Preformed*™ PLASTIC TREE GUARDS

protect covered cables or conductors from trees, poles, building corners or other abrasive obstacles. Made for: Neoprene and Polyethylene Triplex Cables with:

- AA Bare-Neutral Messenger
- ACSR Bare-Neutral Messenger
- ACSR Reduced Size Bare-Neutral Messenger
- Neoprene and Polyethylene Covered AA and ACSR Conductors
- URC Type Triple and Double Braid AA and ACSR Conductors

*Preformed*™

**FLEXIBLE SPLICES**—the fast, tool-free way to join or repair conductors, messenger and guy strand. Because all Preformed Splices "breathe" with the conductor, no inhibitors are necessary, no moisture pockets can form, no seals can break with the flexing conductor, no concentrated clamping stresses are imposed upon the conductor. Preformed Splices permanently maintain better electrical conductance than an equal length of unspliced conductor.

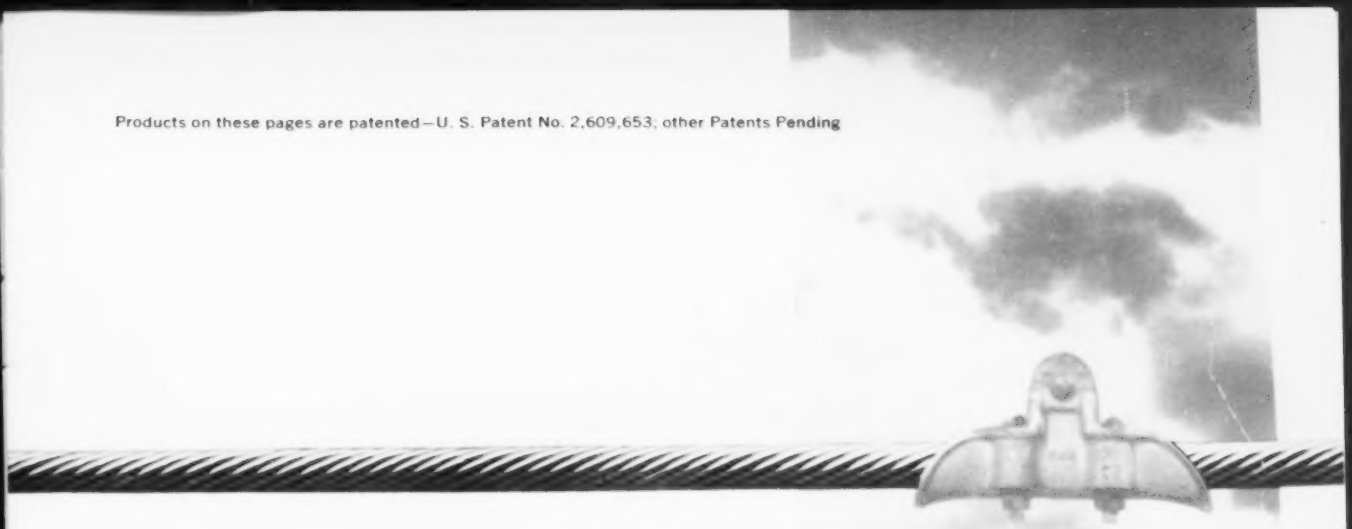
*Preformed*™

**ALUMINUM-GRIP SPLICES** are made to hold the full strength of the aluminum strand layers of ACSR conductor, and the full rated strength of All-Aluminum, Kaiser AAAC, and Reynolds 5005 conductors.

*Preformed*™

**FULL-TENSION SPLICES** hold the full-rated strength of ACSR conductors. Splices are also available for full-tension applications on Galvanized Steel, Copper-Covered Steel, Type M Copperweld guy strand and Alumoweld.

Products on these pages are patented—U. S. Patent No. 2,609,653; other Patents Pending



*Preformed*™

**ARMOR SPLICES** are used to repair **existing** damage from concentrated clamp stresses at support points and to guard against future damage from arc over and vibration. Preformed Armor Splices are made for Aluminum, Copper-Covered Steel, Copperweld-Copper, and Copper conductors.

*Preformed*™

**SPLICE SHUNTS** restore full electrical conductivity and mechanical strength to the conductor when moisture pockets have caused internal corrosion and overheating with subsequent failure of the rigid joints and splices. They are wrapped on by hand over the old splice. No wrenches, compressors, or dies are required, and it is not necessary to lower the conductor to the ground.

**Ask your Preformed Representative for complete specifications and price information on these Preformed products.**

# *Preformed*™ PRODUCTS for WESTERN UTILITIES sold and serviced by these WESTERN REPRESENTATIVES

**C. B. ANDERSON ELECTRIC COMPANY**
Amarillo, Texas
P. O. Box 1836
111 East First Street
Phone: DRake 6-6443

**BERGSTROM-VERBARG COMPANY**
Minneapolis 1, Minnesota
634 Midland Bank Building
Phone: FEderal 9-0028

**EARL S. CONDON COMPANY**
Los Angeles 5, California
Suite 915—Tishman Building
3450 Wilshire Boulevard
Phone: DUnkirk 1-3951

**HONOLULU ELECTRICAL PRODUCTS COMPANY, LTD.**
Honolulu, Hawaii
630 Piikoi Street
Phone: 5-4971

**PETERSON COMPANY**
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**UNISTRUT PRODUCTS CO.**, 933 W. Washington Blvd., Chicago 7, Ill.—District Office: Unistrut Products Co., P. O. Box 1293, Beverly Hills, Calif. Western Specialty Co., 2200 W. Willetta, Phoenix; Glenmart Co., Inc., 2850 Tanager Ave., Los Angeles 22; W. W. Herron Co., Inc., 215 12th St., Sacramento 14; Unistrut Northern California, 2547 9th St., Berkeley 10, Calif.; Unistrut Div., Builders Supply Co., P. O. Box 176, Helena, Mont.; Pace-Turpin & Co., 726 S. 3rd West St., Salt Lake City 1; Unistrut Div., The Brower Co., 114 Virginia St., Seattle 1, and 1633 N. W. 21st St., Portland; Unistrut Western, Inc., 601 S. Jason St., Denver; International Division, U. S. Industries, P. O. Box 300, Honolulu, Hawaii.

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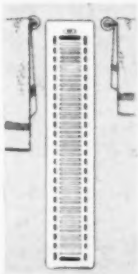

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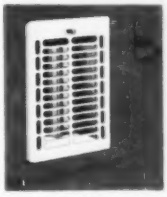

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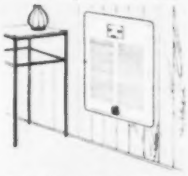

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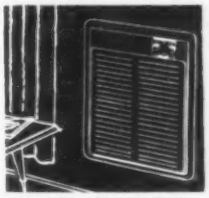

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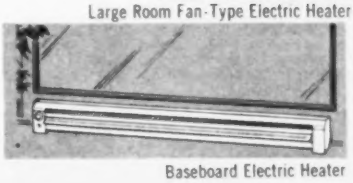

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**WEBER ELECTRIC MFG. CO.**, 15224 Kercheval Ave., Detroit, Mich.—Gordon Wood, 1855 Industrial St., Los Angeles; Ed B. Schack, 2218 First Ave., Seattle.

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**WESIX ELECTRIC HEATER CO.**, 390 First St., San Francisco, Calif.—Branch Offices: Vernon Cobb, Securities Bldg., Seattle 1; Frank Hunsaker, 1869 S. W. 6th Ave., Portland; C. W. Larve, 1638 Wilshire Blvd., Los Angeles; George Hollister, 1021 E. Pontiac Way, Fresno 4; Arthur M. Banchero, 1331 T St., Sacramento; C. S. Hicks, 802 Realty Bldg., Spokane; Wesley Hicks, Jr., Rm. 735, Bank of America Bldg., San Diego; Matt Cabot & Assoc., P. O. Box 3708, Honolulu, Hawaii.

**WEST COAST ELEC. MFG. CORP.**, 233 W. 116th Pl., Los Angeles 61; Western Electro-Mechanical Co., 300 Broadway, Oakland.

**WESTERN ELECTRO-MECHANICAL CO., INC.**, 300 Broadway, Oakland, Calif.—R. E. Cunningham & Son, 523 W. 6th St., Los Angeles; George Hoffman, 3007 S. W. Nebraska, Portland; Herman E. Held, 147 10th St., San Francisco.

**WESTERN INSULATED WIRE CO., 2425 E. 30th St., Los Angeles, Calif.—Curry Co., 305 King St., San Francisco 3; Jack Stumph, 1000 4th Ave. S., Seattle; T. R. Van Wagoner, 1415 S. Main St., Salt Lake City; John Carder, 1624 N. First St., Albuquerque; A. E. Linzer, 1507 Kapiolani Blvd., Honolulu, Hawaii.**

**WESTERN LIGHTING CORP.**, 3815 Medford St., Los Angeles 63, Calif.—Dan H. Radke Co., 754 Natoma St., San Francisco; Earl Stearns, Rte. 6, Box 945, Tacoma 22; Tom Van Wagoner, 1415 S. Main St., Salt Lake City; Harry Stearns, 7240 S.W. 82nd Ave., Portland 19; Norman F. Ross, 4763 E. Lafayette Blvd., Phoenix; Ross Vieths, 3632 41st St., Seattle.

**WESTERN SWITCHBOARD CO.**, 474 Bryant St., San Francisco.

**WESTERN TRANSFORMER CO., 618 E. 11th St., Oakland, Calif.**

**WESTINGHOUSE ELECTRIC CORP.**, 401 Liberty Ave., Pittsburgh, Pa.—INDUSTRIAL PRODUCTS: Walter J. Maytham, Vice President, 410 Bush St., San Francisco. District Offices: C. S. Purnell, Mgr., 600 St. Paul Ave., Los Angeles; K. L. Howe, Mgr., 3451 E. Marginal Way, Seattle; H. N. Miller, Mgr., 1414 N.E. Grand Ave., Portland; H. B. Hodgins, Mgr., 235 W. South Temple St., Salt Lake City; W. T. Michael, Mgr., 1102 N. 21st Ave., Phoenix; D. E. Kampschror, Mgr., 949 So. Montana St., Butte; A. F. Buck, Mgr., 910 Fifteenth St., Denver; R. E. Blasen, Mgr., North 1023 Monroe St., Spokane; C. W. Miller, Mgr., 525 E St., San Diego; H. W. Loren, Mgr., 1325 So. Tacoma Way, Tacoma 2; A. G. Kane, Mgr., 15217 Burbank Blvd., Van Nuys; E. C. Martinez, Mgr., 6541 Eastern Ave., Bell Gardens; H. E. Day, Mgr., 129 So. First Ave., Arcadia; C. W. Waldow, Mgr., 18020 So. Santa Fe Ave., Compton; R. J. Pascoe, Mgr., 5815 Peladeau St., Emeryville.

—LAMP DIVISION, Headquarters, Bloomfield, N. J.—G. B. Mackey, Pac. Coast Region Sales Mgr., 2222 Grant Ave., San Lorenzo, Calif.; R. K. Leonard, Retail Sales Mgr., Pac. Coast Region, W. C. Hird, Dis. Sales Mgr., 2812 E. 46th St., Vernon, Calif.; F. T. Anderson, Dist. Sales Mgr., 1051 1st Ave. S., Seattle 4; George E. Congdon, Dist. Sales Mgr., 410 Bush St., San Francisco 8; D. H. Eby, 910 15th St., Denver 2; J. C. Gilmore, Mgr., 13400 Harvey Hines Blvd., Walnut Hill Station, Box 13133, Dallas, Texas.

—LIGHTING DIVISION, Headquarters, Edgewater Park, Cleveland, Ohio—W. R. Davies, Mgr., West Coast Operations, 2222 Grant Ave., San Lorenzo, Calif. District and Branch Offices: Butte, Seattle, Portland, Spokane, Salt Lake City, San Francisco, Los Angeles, San Diego, Phoenix, Denver, San Lorenzo, Sacramento, Arcadia, Van Nuys, Compton, Bell Gardens, Rialto, Tucson, Medford, Eugene, Tacoma, Sunnyvale, Fresno.

—ELEVATOR DIVISION, Headquarters, Jersey City, N. J.—G. R. Baker, Pacific Coast Regional Mgr., 715 Harrison St., San Francisco 7; W. G. Heath, District Mgr., 600 St. Paul Ave., Los Angeles 17; John Ford, Branch Mgr., 5528 White Henry Stuart Bldg., Seattle 1; C. A. Dana, Denver.

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—AIR CONDITIONING DIVISION, Headquarters, Staunton, Va.—Pacific Coast Regional Office, 1515 S. Garfield Ave., Los Angeles 22; Branch Offices: 410 Bush St., San Francisco 8; 1110 N. 21st Ave., Phoenix, Ariz.

**WESTLITE**, 780 Broadway, Redwood City, Calif.—Associated Lighting Service, P. O. Box 1033, Redwood City, Calif.; A. R. Parker Co., 420 Market St., San Francisco; Allied Productions, Inc., 2109 S. W. 3rd Ave., Portland; Stage Sound & Equipment Co., 1500 South Main St., Las Vegas, Nev.; J. M. Boyd, 2032 S. Vermont Ave., Los Angeles 7; David M. Merrill, P. O. Box 573, Farmington, Utah.

**WESTMORELAND METAL MFG. CO.**, 7400 Milnor St., Philadelphia, Pa.—The Curry Co., 305 King St., San Francisco.

**WESTON INSTRUMENTS**, Div. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark, N. J.—Branch Offices: 2001 S. Grand Ave., Los Angeles, and 147 Tenth St., San Francisco; Eicher & Co., 5 West Harrison St., Seattle 4; Peterson Co., 4949 Colorado Blvd., Denver 16; J. E. Redmond Supply Co., 625 W. Madison St., Phoenix.

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**WHEELER ELECTRONIC CORP.**, 150 E. Aurora St., Waterbury, Conn.—Rollins Electric, S. Atlantic Blvd., Monterey Park, Calif.; A. B. Loudermilk, 1539 Folsom St., San Francisco; Tinling & Powell, E. 708 Sprague, Spokane, Wash.

**WHEELER MANUFACTURING CO., C. H.**, 19th and Lehigh Ave., Philadelphia 32, Pa.—Maydwell & Hartzell, Inc., 427 W. 5th St., Los Angeles 13, 870 Tennessee St., San Francisco 7, and 324 S. Second St., Phoenix; Bumstead Woolford Co., 1411 Fourth Ave., Seattle, and 320 S. W. Stark St., Portland 4; Utility Engineers, Inc., 630 Dooly Bldg., Salt Lake City 1; Hendrie & Bolthoff Co., 1635 17th St., Denver 17; Sebree Equip. Co., P. O. Box 6115, Albuquerque.

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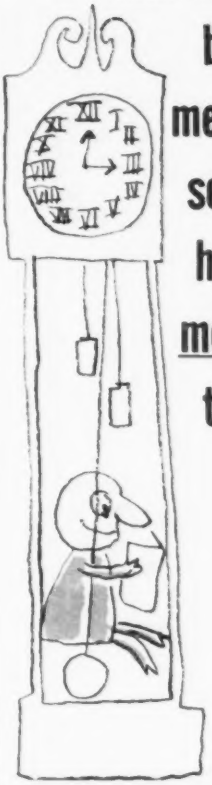

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**WILSON LIGHTING & DISPLAY, INC., J. A.**, 1502 Industrial Drive, Erie, Pa.—Southwestern Electric Co., 120 S. Hewitt St., Los Angeles 12.

**WILSON RUBBER CO.**, Div. Becton, Dickinson & Co., 1200 Garfield Ave. S.W., Canton 6, Ohio—Branch Offices: 530 Howard St., San Francisco and 429 S. Western, Los Angeles; Western Hardware & Tool Co., 122 10th St., San Francisco. Sold through General Elec. Supply all principal cities; also through distributors all cities.

**WINCHARGER CORP.**, East 7th and Division, Sioux City 2, Iowa—Howard Toncray II, 1732 Blake St., Denver 2; Roy Hollabaugh Co., 20 S. E. 9th St., Portland; Chas. Packer Co., 420 First Ave. West, Seattle; Lynn Eng. & Supply, Russ Bldg., San Francisco; Keeler, White, Inc., 1041 6th Ave., South, Seattle 4.

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**WING MFG. CO., L. J.**, Div. of Aero Supply Mfg. Co., Inc., Vreeland Mills Rd., Linden, N. J.—Richardson Equip. Co., 612 Front St., Boise; Don Bachman Co., 950 Cherokee St., Denver; Edward P. Gerich, 1180 Carmond Ave., Los Angeles; Olympic Supply Co., 1743 1st Ave. S., Seattle; Harang Eng. Co., 133 Tanforan Ave., San Bruno, Calif.; D. E. Weidner, 514 Realty Bldg., Spokane; Central Station Equip. Co., 2323 Aviation Highway, Tucson; Fred McMeans & Co., 1608 W. 5th Ave., Vancouver, B. C.

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**WOOD PRESERVA CO.**, 1200 Harbor Ave., S. W., Seattle, Wash.—Thomas Wood Co., 220 9th Ave., No. Seattle 9; Rainier Wood Preservers, 2067 14th St., Chehalis, Wash.

**WOODHEAD CO., DANIEL**, 15 N. Jefferson, Chicago, Ill.—Kenneth Anderson Co., 123 S. Myers St., Los Angeles, and 422 S. 7th Ave., Phoenix; K. B. Schumann, 1073 Galapago St., Denver; Shaffer & Nelson, 312 Occidental Ave., Seattle, 1835 W. Broadway, Spokane, and 139 S. E. Taylor, Portland; D. O. Harvey, 501 E. 775 N., Bountiful, Utah; John H. Maddox Co., 420 Market St., San Francisco.

**WORTHINGTON CORP.**, 400 Worthington Ave., Harrison, N. J.—Branch Offices: 224 Townsend St., San Francisco; 5075 Santa Fe, Los Angeles; 2616 Western Ave., Seattle; 118 Social Hall Ave., Salt Lake City; 1815 S. E. 7th Ave., Portland; 1640 Blake St., Denver.

**WRAP-ON CO.**, 341 W. Superior St., Chicago, Ill. Branch: 1864 S. 120th St., Seattle 88.

**WYOMING VALLEY EQUIP. DIV.**, 714 Wyoming Ave., Kingston, Pa.—T. A. Ford Co., Inc., 320 S. San Marino Ave., San Gabriel, Calif.; Utility Body Co., 1530 Wood St., Oakland 7; Paul K. Haggard Co., 4431 N. 7th St., Tacoma 6.

**YARNALL-WARING CO.**, Chestnut Hill, Philadelphia, Pa.—Branch Offices: 2300 26th St., San Francisco; 4003 Aurora Ave., Seattle; 380 East Green St., Pasadena.

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**YUBA CONSOLIDATED INDUSTRIES, INC.**, 351 California St., San Francisco, Calif.—Direct Sales Force principal cities.

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Myers Elec. Prod., Inc.
Phillips & Edwards Elec. Corp.
Royal Elec. Mfg. Co. Inc.

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General Elec. Supply Co.
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Westinghouse Elec. Supply Co.
Wilcox, George P.

**Air Conditioning**
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Baraba, E. J. G.
The Electric Corp.
General Elec. Co.
General Elec. Supply Co.
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Graybar Elec. Co., Inc.
Incandescent Supply Co.
Montgomery Bros.
Phillips & Edwards Elec. Corp.
Smallcomb Elec. Co.
Stubbs Electric Co.
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Kaiser Aluminum & Chemical Corp.
Reynolds Metals Co.

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Artwel Elec. Inc.
Baxter Co., The
Burcham Co., Don H.
Dougherty Enterprises
Duncan Elec. Mfg. Co.
General Elec. Co.
General Elec. Supply Co.
Gough Industries, Inc.
Graybar Elec. Co., Inc.
Geo. E. Honn Co.
Kearns Co., James L.
Incandescent Supply Co.
Jones Co., J. Henry
James R. Kearney Corp.
Knopp, Inc.
Maddox Co., John
Maddox Sales Co.
Maydwell & Hartzell, Inc.
Nicholas, Fred M.
L. A. Nott
Nourse Equip. Co.
Olympic Instrument Laboratories
Parsons Co., E. B.
Phillips & Edwards Electric Corp.
Pyramid Instrument Co.
Randolph Engineering Corp.
Remcon
T. R. Routh Co.
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Pullman Vacuum Cleaner Co.
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General Elec. Co.
General Elec. Supply Co.
Gough Industries Inc.
Graybar Elec. Co., Inc.
Hartley, Barney H.
Hornstein Bros.
Hotpoint Co., Div. GE
Incandescent Supply Co.
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Fanner Mfg. Co.
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Maydwell & Hartzell, Inc.
Pacific Utilities Supply Co.
Pope, Forrest E.
Preformed Line Products Co.
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Insulator Dept., GE Co.
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General Elec. Co.
Graybar Elec. Co., Inc.
Industrial Engineering & Equip. Co.
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Kearney Corp., Jas. R.
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Matzinger-Johnson Co.
Maydwell & Hartzell, Inc.
Pacific Utilities Supply Co.
Pope, Forrest E.
Roebling's Sons Co., John A.
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Seculate
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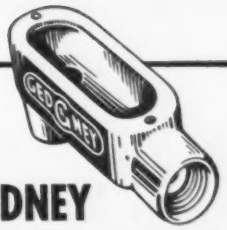


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Square D Co.
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Gough Industries, Inc.
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Rome Cable Corp.
Royal Electric Corp.
Royal Elec. Mfg. Co. Inc.
Shirreffs Co., Jim
Western Ins. Wire Co.
Westinghouse Elec. Corp.
Westinghouse Elec. Supply Co.

**Cords, Heavy Duty**
American Steel & Wire Co.
Anaconda Wire & Cable Co.
Benz Co., Fred D.
Bran Co., Frank H.
Brill Elec. Sales
Carol Cable Co.
Cereske Co., William
Circle Wire & Cable
Clifton Wire & Cable Div.,
General Cable Corp.
Collyer Insulated Wire Co.
Earl S. Condon Co.
Cornish Wire Co., Inc.
Curry Co., The
Eagle Electric Mfg. Co., Inc.
The Electric Corp.
Essex Wire Corp.
General Cable Corp.
General Elec. Co.
General Elec. Supply Co.
Gough Industries, Inc.
Gray Co., Geo. A.
Graybar Elec. Co.
Hatfield Wire & Cable Div.
Hubbell, Inc., Harvey
Incandescent Supply Co.
Kaiser Alum. & Chem. Corp.
Maydwell & Hartzell, Inc.
National Elec. Products Corp.
Nicholas Co., F. M.
Okonite Co.
Payne & Sloan, Inc.
Rockbestos Products Corp.
John A. Roebling's Sons Co.
Rome Cable Corp.
Royal Electric Corp.
Royal Elec. Mfg. Co. Inc.
Simplex Wire & Cable Co.
Tri-State Supply Corp.
U. S. Steel Co.
Western Ins. Wire Co.
Westinghouse Elec. Corp.
Westinghouse Elec. Supply Co.

**Counters, Computing Devices**
Arthur & Allen
General Electric Co.
Ripley Co., Inc.

**Couplings**
(See Connectors, Couplings)

**Cranes**
(See Derricks, or Trolley Systems)

**Crossarms**
Aluminum Company of America
Chance Co., A. B.
General Elec. Supply Co.
Graybar Elec. Co.
Geo. E. Honn Co.
Hubbard & Co.
Line Material Industries, Div.
Insulator Dept., GE Co.
Matzinger-Johnson Co.
Maydwell & Hartzell, Inc.
Pacific Crossarm Co.
Westinghouse Elec. Supply Co.
Wrathall & Krusi

**Cutouts**
Chance Co., A. B.
Coastal States Elec. & Equip. Co.
Federal Pacific Electric
G & W Electric Specialty Co.
General Elec. Co.
Gough Industries, Inc.
Graybar Elec. Co., Inc.
Guire, H. C.
Geo. E. Honn Co.
Hubbard & Co.
Incandescent Supply Co.
Industrial Eng. & Equip. Co.
C. E. Ingalls & Sons
James R. Kearney Corp.
Kirk Co., W. E.
Line Material Industries, Div.
McGraw-Edison Co.
Maydwell & Hartzell, Inc.
Phillips & Edwards Elec. Corp.
Randolph Engineering Corp.
S. & C. Electric Co.
Southern States Equipment Corp.
Square D Co.
Stubbs Electric Co.
Westinghouse Elec. Corp.
Westinghouse Elec. Supply Co.
Wrathall & Krusi

**Cutters, Shears**
Bartlett Mfg. Co.
T. A. Ford Co.
General Electric Co.
Graybar Elec. Co., Inc.
Greenlee Tool Co.
Honn Co., George E.
Pacific Utilities Supply Co.
Ryals Co., K. M.

**Dead-Ends**
(See Clamps, Dead-Ends)

**Derricks—Dinkies**
Arthur & Allen
Baldwin-Lima-Hamilton
Ford Co., Inc., T. A.
FWD Co., The
Graybar Elec. Co., Inc.
Holan Corp., The J. H.
Industrial Eng. & Equip. Co.
McCabe Powers Body Co.
Moffett Engineering Co.
Morrison-Pelsue Co.
Line Material Industries, Div.
McGraw-Edison Co.
Pacific Utilities Supply Co.
Tel-E-Lect Products, Inc.
Truck Equipment Co.
Utilities Body Co.

**Diggers and Augers**
(See Earth Boring Equipment)


**ELECTRIC CABLE AND WIRE**

*From Stock—Cut to Length*

Power Cable
Control Cable
Asbestos Cable
Underground Cable
High Voltage Cable

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**Distribution Specialties**
Allis-Chalmers Mfg. Co.
Anderson Electric Corp.
Best Linemen's Supply Corp.
Burndy Corp.
The Electric Corp.
Esco Mfg. Co.
Fargo Mfg. Co., Inc.
General Elec. Co.
Graybar Elec. Co., Inc.
Geo. E. Honn Co.

Hubbard & Co.
Industrial Eng. & Equip. Corp.
I-T-E Circuit Breaker Co.
James R. Kearney Corp.
Kirk Co., W. E.
Kortick Mfg. Co.
Line Material Industries, Div. McGraw-Edison Co.
Insulator Dept., GE Co.
Maydwell & Hartzell, Inc.
Myers Elec. Prod., Inc.
O. Z. Electrical Mfg. Co.
Pacific Utilities Supply Co.
Porcelain Insulator Corp.
Porcelain Products, Inc.
Randolph Eng. Corp.
Rising, Inc., H. G.
Ryals Co., K. M.
Safety Switchboard Co.
S. & C. Electric Co.
Sierra Elec. Corp.
Square D Co.
Thomas Works, H. K. Porter Co., Inc.
Western Switchboard Co.
Westinghouse Elec. Corp.
Westinghouse Elec. Supply Co.
Wrathall & Krusi

**Dollies, Pole**
(See Trucks, Trailers)

**Door Openers, Electric**
Edwards Co., Inc.
General Elec. Supply
Howard & Associates, G. M.
Incandescent Supply Co.
Matzinger-Johnson Co.
Phillips & Edwards Elec. Corp.
Trine Mfg. Corp.

**Drills**
Benz Co., Fred D.
Graybar Elec. Co., Inc.
Greenlee Tool Co.
Hubbard & Co.
Incandescent Supply Co.
Kortick Mfg. Co.
Line Material Industries, Div. McGraw-Edison Co.
Nicholas Co., F. M.
Petersen Engineering Co.
Phillips & Edwards Elec. Corp.
Truck Equipment Co.
Utility Body Co.
Westinghouse Elec. Corp.
Westinghouse Elec. Supply Co.

**Duct**
Allied Industries
Arthur & Allen
Allis-Chalmers
Benz Co., Fred D.
Brill Electric Sales
BullDog Elec. Products Co.
Calrepco
Columbia Elec. Mfg. Co.
Conduflor Corp.
Cope, T. J., Div., Rome Cable Corp.
Federal Pacific Electric
General Elec. Co.
General Electric Supply Co.
Gough Industries, Inc.
Graybar Elec. Co., Inc.
Hartley, Barney H.
Honn, Geo. E.
Ideas, Inc.
Incandescent Supply Co.
Ingalls & Sons, C. E.
Johns-Manville Corp.
Krause Engineering
Line Material Industries, Div. McGraw-Edison Co.
Magnes Co., Inc., Geo. R.
Maydwell & Hartzell, Inc.
National Elec. Div.
National Supply Tubular Prod. Div.
Orangeburg Mfg. Co., Inc.
Phillips & Edwards Elec. Corp.
Randolph Engineering Corp.
Ryals Co., K. M.
Safety Switchboard Co.
Sheeter, Hugh X.
Soapstone Duct Co.
Spang-Howard Duct. Div.
Square D Co.
Stubbs Electric Co.
Taylor Electric Co.
Westinghouse Elec. Corp.
Westinghouse Elec. Supply Co.

**Earth Boring Equipment**
Chance Co., A. B.
Everstick Anchor Co.
Ford Co., T. A.
FWD Co., The
Graybar Elec. Co., Inc.
Geo. E. Honn Co.
Holan Corp., The J. H.
Industrial Eng. & Equip. Corp.
Line Material Industries, Div.
McCabe Powers Body Co.
Petersen Engineering Co.
Tel-E-Lect Products Co.
Texoma
Truck Equipment Co.
Utility Body Co.
Westinghouse Elec. Supply Corp.

**Electrical Connections**
F. M. Anthony Co.
Arthur & Allen
Baxter Co., The
E. B. Cook Co.
Electric Tube Products, Inc.
Gedney Elec. Co.
Graybar Elec. Co., Inc.
Incandescent Supply Co.
Pacific Utilities Supply Co.
Phillips & Edwards Elec. Corp.
Ryals Co., K. M.
Sierra Elec. Corp.

**Electrodes**
General Elec. Co.
Artwel Electric, Inc.
Westinghouse Elec. Corp.

**Electronic Devices**
Arthur & Allen
Artwel Electric, Inc.
Benz Co., Fred D.
Brenner-Fiedler & Associates
Burcham Co., Don H.
Condon Co., Earl S.
Cook Co., E. B.
de Leuze Co., Guy
Eichorn & Melchoir
Electronic Contractors
Ford Co., Inc., T. A.
General Elec. Co.
General Elec. Supply Co.
Graybar Elec. Co.
Hill Transformer Co.
Hubbell, Inc., Harvey
Incandescent Supply Co.
Ingalls & Sons, C. E.
International Business Machines
I-T-E Circuit Breaker
Kearns Co., James L.
Maddox Co., John H.
Magnes Co., Inc., George R.
Montgomery Bros.
Nott, L. A.
Phillips & Edwards Elec. Corp.
Rising, Inc., H. G.
Randolph Engineering Corp.
Ripley Co. Inc.
Routh Co., T. R.
Sierra Elec. Corp.
Smallcomb Electric Co.
Standard Electric Sales
Square D Co.
Stubbs Electric Co.
Tri-State Supply Corp.
Westinghouse Elec. Corp.
Westinghouse Elec. Supply Co.

**Electroplaters (See Platers)**

**Enclosures, Meter and Instrument**
Alwalt Mfg. Co.
Blakeman Bros. Electric Mfg. Co., Inc.
Crouse-Hinds Co.
General Elec. Supply Co.
Geo. A. Gray
Graybar Elec. Co., Inc.
Hope Elec'l Products Co.
Howard & Assoc., G. M.
Incandescent Supply Co.
Industrial Engineering & Equip Corp.
Killark Elec. Mfg. Co.
Myers Elec. Products, Inc.
Nicholas, Fred M.
L. A. Nott
Phillips & Edwards Elec. Corp.
Square D Co.
Wadsworth Elec. Mfg. Co.
Westinghouse Elec. Corp.
Westinghouse Elec. Supply Co.

**Exchangers, Heat**
Allis-Chalmers Mfg. Co.
Morrison-Pelsue Co.
Westinghouse Elec. Corp.
Westinghouse Elec. Supply Co.

**Fans**
Bach Co., Pete
Baraba, E. J. G.
Benz Co., Fred D.
Bran Co., Frank H.
Broan Mfg. Co., Inc.
The Electric Corp.
General Elec. Co.
General Elec. Supply Co.
Gough Industries, Inc.
Graybar Elec. Co., Inc.
Incandescent Supply Co.
Herbert Kaub & Co.
Keeler, White Co.
Levin, M.
Markel Electric Prod., Inc.
Matzinger-Johnson Co.
Maydwell & Hartzell, Inc.
Montgomery Bros.
Morrison-Pelsue Co.
Nicholas Co., F. M.
Perfect-Line Mfg. Corp.
Phillips & Edwards Elec. Corp.
Smallcomb Elec. Co.
Stubbs Electric Co.
Swanson Mfg. Co.
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Baraba, E. J. G.
Broan Mfg. Co., Inc.
General Electric Co.
General Electric Supply Co.
Graybar Elec. Co., Inc.
Incandescent Supply Co.
Keeler, White Co.
Matzinger-Johnson Co.
Montgomery Bros.
Nicholas Co., F. M.
Perfect-Line Mfg. Corp.
Phillips & Edwards Elec. Corp.
Smallcomb Elec. Co.
Stanthony
Swanson Mfg. Co.
Westinghouse Elec. Corp.
Westinghouse Elec. Supply Co.
Wilt, O. B.
Watteredge Co.
Tri-State Supply Corp.
Westinghouse Elec. Corp.

**Fireplace Equipment**
Westinghouse Elec. Corp.

**Fire-Proofing**
Johns Manville Corp.
Rockbestos Prod. Corp.

**Fish Tape**
(See Tape, Fish, Wire Pullers, etc.)

**Fittings, Conduit**
(See Conduit Fittings)

**Fittings, Copper Conductor**
Allied Industries, Inc.
Anderson Electric Corp.

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E. B. Cook
Crouse-Hinds Co.
General Electric Co.
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Graybar Elec. Co., Inc.
Kortick Mfg. Co.
Line Material Industries, Div., McGraw-Edison Co.
Maydwell & Hartzell, Inc.
J. G. Pomeroy Co.
Porcelain Products, Inc.
Westinghouse Elec. Corp.
Westinghouse Elec. Supply Co.

**Feed Water Heaters**
Allis-Chalmers Mfg. Co.

**Filters**
General Electric Co.
General Electric Supply Co.
Graybar Elec. Co., Inc.
Kaufmann, Leo
Montgomery Bros.
F. M. Anthony Co.
Jasper Blackburn Corp.
Buchanan Elec'l Prod. Corp.
Burndy Corp.
Chance Co., A. B.
Delta Star Elec. Div., H. K. Porter Co., Inc.
Eichorn & Melchoir
The Electric Corp.
Electric Tube Products Co.
Gedney Elec. Co.
General Electric Co.
General Electric Supply Co.
Graybar Elec. Co., Inc.
Incandescent Supply Co.
Industrial Eng. & Equip. Co.
Ingalls & Sons, C. E.
James R. Kearney Corp.
Killark Elec. Mfg. Co.
C. E. Kirk Co.
Line Material Industries, Div. McGraw-Edison Co.
Maddox Sales Co.
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Maydwell & Hartzell, Inc.

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Slimline & Fluorescent Light Fixtures
Corning Glass Filters
Fused Quartz Laboratory Apparatus
Luminous Paints & Lacquers

Nicholas Co., F. M.
O. Z. Elec'l Mfg. Co.
Pacific Utilities Supply Co.
Penn-Union Elec. Corp.
Phillips & Edwards Elec. Corp.
J. G. Pomeroy & Co.
Royal Elec. Mfg. Co. Inc.
Ryals Co., Ken
Westinghouse Elec. Corp.
Westinghouse Elec. Supply Co.
Wrathall & Krusi

**Fittings, Fixture**
Arthur & Allen
Benjamin Elec. Mfg. Co.
Electrical Fittings Corp.
Buchanan Elec'l Products
Graybar Elec. Co., Inc.
Incandescent Supply Co.
Killark Elec. Mfg. Co.
Maddox Sales Co.
McGill Co.
Magnes Co., Inc., Geo. R.
Matzinger-Johnson Co.
Mundstock, James
Nicholas, F. M.
Phillips & Edwards Elec. Corp.
J. G. Pomeroy Co.
Westinghouse Elec. Corp.
Westinghouse Elec. Supply Co.

**Fittings, Insulator**
Allied Industries
F. M. Anthony Co.
Arthur & Allen
Brewer-Titchener Corp.
Buchanan Electrical Prod. Corp.
Delta Star Elec. Div.,
H. K. Porter Co., Inc.
Eichorn & Melchoir
The Electric Corp.
General Elec. Supply Co.
Gray Co., George A.
Graybar Elec. Co.
Hodges & Glomb
Honn Co., Geo. E.
Hubbard & Co.
Incandescent Supply Co.
Ingalls & Sons, C. E.
W. E. Kirk Co.
Kortick Mfg. Co.
Lapp Insulator Co., Inc.
Line Material Industries, Div.
McGraw-Edison Co.
Insulator Dept. GE Co.
Maydwell & Hartzell, Inc.
Nicholas, F. M.
O. Z. Electrical Mfg. Co.
Ohio Brass Co.
Penn-Union Elec. Corp.
Phillips & Edwards Elec. Corp.
Porcelain Insulator Corp.
Porcelain Products, Inc.
Shirreffs Co., Jim
Thomas Works, Div.,
Victor Insulators, Inc.
Westinghouse Elec. Corp.
Westinghouse Elec. Supply Co.

**Fittings, Marine**
Allied Industries, Inc.
Eichorn & Melchoir
General Electric Supply Co.
Gray Co., Geo. A.
Incandescent Supply Co.
Hodges & Glomb
Phillips & Edwards Elec. Corp.
Westinghouse Elec. Corp.
Westinghouse Elec. Supply Co.

**Fittings, Pipe & Structural**
Arthur & Allen
Arthur, Robert J., Co.
Conduit Pipe Products Co.
Delta Star Elec. Div.,
H. K. Porter Co., Inc.
Electrical Fittings Corp.
Gedney Electric Co.
General Electric Co.
Gray Co., George A.
Graybar Elec. Co., Inc.
Incandescent Supply Co.
Ingalls & Sons, C. E.
W. E. Kirk Co.
Line Material Industries, Div.
McGraw-Edison Co.
Matzinger-Johnson Co.
O. Z. Electrical Mfg. Co.
Phillips & Edwards Elec. Corp.
Porcelain Products, Inc.
Royal Elec. Mfg. Co. Inc.
Shirreffs Co., Jim
Westinghouse Elec. Corp.
Westinghouse Elec. Supply Co.

**Fixtures, Lighting**
All-Brite Lighting Div.
Allied Industries, Inc.
Appleton Electric Co.
Arthur & Allen
Benjamin Elec. Mfg. Co.
Benz Co., Fred D.
Cabot & Associates, Matt
Commercial Lighting Equipment Co.
E. B. Cook
Crouse-Hinds Co.
Curtis-AllBrite Lighting, Inc.
Day-Brite Lighting, Inc.
de Leuze Co., Guy
The Electric Corp.
General Electric Supply Co.
Globe Lighting Products, Inc.
Graybar Elec. Co., Inc.
Holophane Co., Inc.
Holzmueller Corp.
Howard & Assoc., G. M.
Hubbard & Co.
Incandescent Supply Co.
Kaufmann, Leo
Killark Elec. Mfg. Co.
Line Material Industries, Div.
McGraw-Edison Co.
Maddox Sales Co.
Markel Elec. Products, Inc.
Myers Elec. Prod., Inc.
Neo-Ray Products, Inc.
Nicholas Co., F. M.
Noack, Martin
Parrish & Justice Co.
Pass & Seymour, Inc.
Peerless Electric Co.
J. G. Pomeroy Co.
Jim Shirreffs Co.
Smoot-Holman Co.
Sunbeam Lighting Co.
Supro Lux Co., Inc.
Steber Mfg. Co. of Calif.
Thallon, Robert
Versen Co., Kurt
Virden Co., John C.
Westinghouse Elec. Corp.
Westinghouse Elec. Supply Co.

**Flashers**
Crouse-Hinds Co.
General Electric Supply Co.
Graybar Electric Co., Inc.
Hughey & Phillips, Inc.
Kirk Co., W. E.
L. A. Nott
Maydwell & Hartzell, Inc.
Sangamo Elec. Co.
Westinghouse Elec. Corp.

**Flashlights**
General Electric Co.
General Electric Supply Co.
Graybar Electrical Products Co.
Hodges & Glomb
Westinghouse Elec. Corp.
Westinghouse Elec. Supply Co.

**Floodlights**
All-Brite Lighting Div.
Arthur & Allen
Appleton Electric Co.
Baxter Co., The
Benjamin Elec. Mfg. Co.
Benz Co., Fred D.
Bran Co., Frank H.
Cleco
Commercial Lighting Equip. Co.
E. B. Cook
Crouse-Hinds Co.
Curtis-AllBrite Lighting Div.
deLeuze Co., Guy
The Electric Corp.
General Electric Co.
General Electric Supply Co.
Graybar Elec. Co.
Hartley, Barney H.
Hodges & Glomb
Holophane Co., Inc.
Holzmueller Corp.
Incandescent Supply Co.
Keeler, White Co.
Killark Elec. Mfg. Co.
Line Material Industries, Div.
McGraw-Edison Co.
Maddox Sales Co.
F. M. Nicholas Co.
Nu-Art Lighting Mfg. Co.
Noack, Martin
Revere Elec. Mfg. Co.
Royal Electric Corp.
Royal Elec. Mfg. Co. Inc.
Jim Shirreffs Co.
Smoot-Holman Co.
Steber Mfg. Co. of Calif.
Thallon, Robert
Westinghouse Elec. Corp.
Westinghouse Elec. Supply Co.
Wrathall & Krusi

**Floor Systems for Computer Rooms**
Industrial Tubular Equipment
Graybar Elec. Co.
Hartley, Barney H.
Hodges & Glomb
Holophane Co., Inc.
Holzmueller Corp.
Howard & Assoc., G. M.
Incandescent Supply Co.
Kaufmann, Leo
Leadlight Fixture Co.
Levin, M.
Lighting Dynamics
Maddox Sales Co.
McGuire, W. A.
Moe Light, Div.
Neo-Ray Products, Inc.
F. M. Nicholas Co.
Noack, Martin
Nu-Art Lighting & Mfg. Co.
Parrish & Justice Co.
Pass & Seymour, Inc.
Peerless Elec. Co.
Pfaff & Kendall
Phillips & Edwards Elec. Corp.
Pomeroy Co., J. G.
Pope, Forrest E.
Revere Elec. Mfg. Co.
Jim Shirreffs Co.
Silverman, Roy
Smoot-Holman Co.
Steber Mfg. Co. of Calif.
Stubbs Electric Co.
Sunbeam Lighting Co.
Supro Lux Mfg. Co., Inc.
Thallon, Robert
Virden Co., John C.
Wakefield Co.
Wesco Electrical Distributors
Westinghouse Elec. Corp.

**Fluorescent Lacquers**
General Electric Supply Co.
Graybar Elec. Co.
Kaufmann, Leo
Westinghouse Elec. Corp.
Westinghouse Elec. Supply Co.

**Fluxes, All Types**
L. B. Allen Co.
General Elec. Co.
Graybar Elec. Co., Inc.
Gratiot Co., C. B.

**Foil—Aluminum**
Aluminum Co. of America
Kaiser Aluminum & Chem. Sales
Reynolds Metals Co.

**Furnaces, Electric**
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General Elec. Co.
Graybar Electrical Co., Inc.
W. E. Kirk Co.
Incandescent Supply Co.
Kuhlman Elec. Co., Detroit Elec. Furnace Div.
Montgomery Bros.
Randolph Engineering Corp.
Lombard Smith Co.
Westinghouse Elec. Corp.

**Fuse Clips**
Bussmann Mfg. Co.
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The Frank H. Bran Co.
Cabot & Associates, Matt
California Ultraviolet Co.
Cleco
Commercial Lighting Equip. Co.
E. B. Cook Co.
Crouse-Hinds Co.
Curtis-AllBrite Lighting Inc.
Day-Brite Lighting, Inc.
deLeuze Co., Guy
The Electric Corp.
General Elec. Co.
General Electric Supply Co.
Globe Lighting Prod., Inc.
Gough Industries, Inc.
Geo. A. Gray Co.
Maddox Sales Co.
Monarch Electric Corp.
Phillips & Edwards Elec. Corp.
Southern States Equip. Corp.
Westinghouse Elec. Corp.
Westinghouse Elec. Supply Co.

**Fuses**
Anderson Co., Kenneth
Arthur & Allen
Baxter Co.
Benz Co., Fred D.
The Frank H. Bran Co.
Brill Electric Sales
Bussmann Mfg. Co.
Cairepco
A. B. Chance Co.
Chase-Shawmut Co.
deLeuze Co., Guy
Eagle Elec. Mfg. Co., Inc.
Earl S. Condon Co.
Economy Fuse & Mfg. Co.
Div. Federal Pac. Elec. Co.

The Electric Corp.
Electrical Specialty Co.
Federal Pacific Elec. Co.
Garnett Young & Co.
General Electric Co.
General Electric Supply Co.
Gough Industries, Inc.
Graybar Elec. Co., Inc.
Hartley, Barney H.
Hodges & Glomb
Geo. E. Honn Co.
Incandescent Supply Co.
Industrial Eng. & Equip Corp.
C. E. Ingalls & Sons
James R. Kearney Corp.
Kearns Co., James L.
Killark Elec. Mfg. Co.
Kirk Co., W. E.
Levin, M.
Line Material Industries, Div. McGraw-Edison Co.
Magnes Co., Inc., Geo. R.
Matzinger-Johnson Co.
Maydwell & Hartzell, Inc.
Monarch Electric Corp.
F. M. Nicholas Co.
Phillips & Edwards Elec. Corp.
Pomeroy Co., J. G.
R T & E Corp.
Randolph Engineering Corp.
Royal Electric Corp.
Royal Elec. Mfg. Co. Inc.
Rising, Inc., H. G.
S & C Elec. Co.
Southern States Equip. Corp.
Square D Co.
Stubbs Electric Co.
Westinghouse Elec. Corp.
Westinghouse Elec. Supply Co.

**Fuse, Cutouts and Links**
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Chase-Shawmut Co.
G & W Elec. Specialty Co.
Garnett Young & Co.
General Electric Co.
Graybar Elec. Co., Inc.
Hubbard & Co.
Incandescent Supply Co.
Ingalls & Sons, C. E.
Kearney Corp., James R.
Line Material Industries
Maydwell & Hartzell, Inc.
Monarch Electric Corp.
Phillips & Edwards Elec. Corp.
R T & E Corp.
Randolph Engineering Corp.
S & C Electric Co.
Westinghouse Elec. Corp.

**Generators & Equipment**
Allis-Chalmers Mfg. Co.
Artwel Elec., Inc.
Easterbrook, H. D.
The Electric Corp.
Electric Specialty Co.
Electro-Motive Div., General Motors Corp.
Ford Co., T. A.
General Electric Co.
Herbert Kaub & Co.
Incandescent Supply Co.
Kearns Co., James L.
Keeler, White Co.
Kurland Motors
Morganite, Inc.
Nott, L. A.
Nourse Equip Co.
Phillips & Edwards Elec. Corp.
Randolph Engineering Corp.
Routh Co., T. R.
Sangamo Generators, Inc.
Metcalf & Co., Inc., James I.
Morganite, Inc.
Nourse Equipment Co.
Smith, Lombard
Stubbs Elec. Co.
Westinghouse Elec. Corp.
Westinghouse Elec. Supply Co.
Young & Co., Robt. A.

**Generators, Steam**
Allis-Chalmers Mfg. Co.
General Electric Co.
Metcalf & Co., Inc., James I.
Westinghouse Elec. Corp.

**Gloves, Protective**
Best Linemen's Supply Corp.
Graybar Elec. Co., Inc.
Linemen's Supply Corp. of Calif.
Ryals Co., K. M.
Western Hdwe. & Tool Co.
Wicx-Merit Glove Co.

**Grinders, Portable**
General Electric Supply Co.
Graybar Electrical Products Co.
Maddox Sales Co.
Nicholas Co., F. M.
Westinghouse Elec. Corp.
Westinghouse Elec. Supply Co.

**Grounding Devices**
Allen-Stevens Conduit Fittings Corp.
Arthur & Allen
Copperweld Steel Co.
Curry Co., The
Delta Star Elec. Div.,
H. K. Porter Co., Inc.
Eagle Elec. Mfg. Co.
Fanner Mfg. Co.
General Electric Supply Co.
Graybar Elec. Co., Inc.
Incandescent Supply Co.
Kirk Co., W. E.
O. Z. Elec'l Mfg. Co.
Pacific Utilities Supply Co.
Phillips & Edwards Elec. Corp.
Jim Shirreffs Co.
Sierra Electric Corp.
Westinghouse Elec. Corp.
Westinghouse Elec. Supply Co.

**Ground Rods**
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Chance Co., A. B.
Copperweld Steel Co.
General Electric Supply Co.
Graybar Electric Co., Inc.
Hubbard & Co.
Incandescent Supply Co.
C. E. Ingalls
Insulator Dept., GE Co.
James R. Kearney Corp.
Kortick Mfg. Co.
Line Material Industries, Div. McGraw-Edison Co.
Maydwell & Hartzell, Inc.
Phillips & Edwards Elec. Corp.
Westinghouse Elec. Corp.
Westinghouse Elec. Supply Co.

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Arthur & Allen
Bran Co., Frank H.
Burndy Corp.
Crouse-Hinds Co.
Cope, T. J., Div. Rome Cable Corp.
de Leuze Co., Guy
Electrical Fittings Corp.
Fullman Mfg. Co.
General Electric Co.
General Electric Supply Co.
Graybar Electric Co., Inc.
Geo. E. Honn Co.
Hodges & Glomb
Hubbard & Co.
Hughey & Phillips, Inc.
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ITEECo
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Maddox Sales Co.
Magnes Co., Inc., George R.
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Jim Shirreffs Co.
Square D Co.
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Westinghouse Elec. Supply Co.

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Arvin Industries, Inc.
Baraba, E. J. G.
Benz Co., Fred D.
Berko Elec. Mfg. Co.
Bran Co., Frank H.
Cabot & Associates, Matt
Ceilheat, Inc.
Cole Elec. Co.
Condon Co., Earl S.
E. B. Cook Co.
The Electric Corp.
Electromode
EverWarm, Inc.
General Electric Co.
General Electric Supply Co.
Gough Industries, Inc.
Graybar Electric Co., Inc.
Howard & Assoc., G. M.
Incandescent Supply Co.
W. E. Kirk Co.
Levin, M.
Markel Elec. Prod., Inc.
Montgomery Bros.
Phillips & Edwards Elec. Corp.
Randolph Engineering Corp.
Jim Shirreffs Co.
Lombard Smith
Stubbs Electric Co.
Swan Mfg. Co.
Thermador Elec'l Mfg. Co.
Titan Sales Corp.
Wesix Elec. Heater Co.
Westinghouse Elec. Corp.
Westinghouse Elec. Supply Co.
Wiegand Co., Edwin L.

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Arvin Industries, Inc.
American Elec. Heat & Air Con. Corp.
Berko Elec. Mfg. Co.
Ceilheat, Inc.
Graybar Electric Co., Inc.
Hill & Dietrick
Howard & Assoc., G. M.
Incandescent Supply Co.
King Elec. Mfg. Co.
Markel Electric Prod., Inc.
Montgomery Bros.
Phillips & Edwards Elec. Corp.
Ramco Mfg. & Eng. Co.
Roberson, Inc.
Swan Mfg. Co.
Jim Shirreffs Co.
Tennessee Plastics, Inc.
Thermador Elec'l Mfg. Co.
Wesix Elec. Heater Co.
Wiegand Co., Edwin L.

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Baraba, E. J. G.
Electromode Div. Com'l Controls
General Electric Co.
General Electric Supply Co.
Graybar Electric Co., Inc.
Incandescent Supply Co.
Kirk Co., W. E.
Montgomery Bros.
Morrison-Pelsue Co.
Phillips & Edwards Electric Corp.
Rising, Inc., H. G.
Rockbestos Prod. Corp.
Jim Shirreffs Co.
Westinghouse Elec. Corp.
Westinghouse Elec. Supply Co.
Wiegand Co., Edwin L.

**Heaters, Portable**
American Elec. Heat & Air Con. Corp.
Arvin Industries, Inc.
Baraba, E. J. G.
Berko Elec. Mfg. Co.
Cabot & Associates, Matt
Ceilheat, Inc.
The Electric Corp.
Electromode Div. Com'l. Controls
General Electric Co.
General Electric Supply Co.
Graybar Elec. Co., Inc.
Gough Industries, Inc.
Howard & Assoc., G.M.
Incandescent Supply Co.
Keeler, White Co.
Markel Electric Prod., Inc.
Montgomery Bros.
Phillips & Edwards Electric Corp.
Rising, Inc., H. G.
Smith, Lombard
Thermador Elec'l Mfg. Co.
Wesix Elec. Heater Co.
Westinghouse Elec. Corp.
Westinghouse Elec. Supply Co.
Wiegand Co., Edwin L.

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Driver-Harris Co.
Electric Switches, Inc.
General Electric Co.
General Electric Supply Co.
Gough Industries, Inc.
Graybar Electric Co., Inc.
G & W Elec. Specialty Co.
W. E. Kirk Co.
Maddox Sales Co.
Montgomery Bros.
Jim Shirreffs Co.
Thermador Elec'l Mfg. Co.
Wesix Elec. Heater Co.
Westinghouse Elec. Corp.
Westinghouse Elec. Supply Co.
Wiegand Co., Edwin L.

**Heating Element, Infrared**
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Graybar Electric Co., Inc.
Kirk Co., W. E.
Montgomery Bros.
Westinghouse Elec. Corp.
Wiegand Co., Edwin L.

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General Electric Supply Co.
Graybar Elec. Co., Inc.
Incandescent Supply Co.
Phillips & Edwards Electric Corp.
Westinghouse Elec. Corp.
Westinghouse Elec. Supply Co.

**Hoists (See Derricks)**

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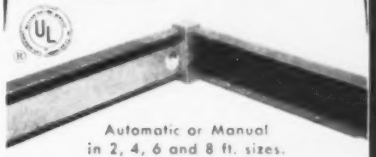

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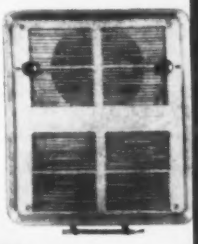

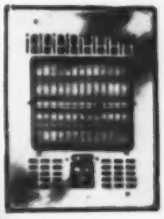

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Pope, Forrest E.
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Thallon, Robert
Virden Co., John C.
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W. E. Kirk Co.
Montgomery Bros.
Phillips & Edwards Elec. Corp.
Steber Mfg. Co. of Calif.
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Ford Co., Inc., T. A.
Federal Pacific Electric Company
General Cable Corp.
General Electric Co.
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Gough Industries, Inc.
Gray Co., George A.
Graybar Electric Co.
G & W Elec. Specialty Co.
Honn Co., Geo. E.
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C. D. LaMoree
Levin, M.
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Phillips & Edwards Elec. Corp.
Rome Cable Corp.
Sierra Elec. Corp.
Stubbs Electric Co.
Tri-State Supply Corp.
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Johns-Manville Dutch Brand
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Lapp Insulator Co.
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General Electric Supply Co.
Gough Industries
Graybar Electric Co.
Incandescent Supply Co.
Industrial Eng. & Equip. Co.
Line Material Industries, Div. McGraw-Edison Co.
Maydwell & Hartzell, Inc.
Stubbs Electric Co.
Wood Co., Thomas
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(See Fittings, Insulators)

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Brewer-Titchener Corp.
Chance Co., A. B.
Delta Star Elec. Div., H. K. Porter Co., Inc.
Earl S. Condon Co.
Electric Service Works
Empire Metal Products Co.
General Electric Co.
General Electric Supply Co.
Gough Industries, Inc.
Gray Co., George A.
Graybar Electric Co.
Geo. E. Honn Co.
Hubbard & Co.
Incandescent Supply Co.
Industrial Eng. & Equip. Corp.
Ingalls & Sons, C. E.
Insulator Dept., G. E. Co.
I-T-E Circuit Breaker Co.
W. E. Kirk Co.
Kortick Mfg. Co.
La Moree, C. D.
Lapp Insulator Co.
Line Material Industries, Div. McGraw-Edison Co.
Insulator Dept., GE
Maydwell & Hartzell, Inc.
Nicholas Co., F. M.
Ohio Brass Co.
Peck Associates, Roy
Pomeroy Co., J. G.
Porcelain Insulator Corp.
Porcelain Products Co.
T. R. Routh Co.
Shirreffs Co., Jim
Stubbs Electric Co.
Thomas Works, Div. H. K. Porter Co., Inc.
Victor Insulators, Inc.
Westinghouse Electric Corp.
Westinghouse Elec. Supply Co.

**Intercommunicating Systems**
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Burcham Co., Don H.
Edwards Co., Inc.
General Electric Supply Co.
Graybar Electric Co.
Incandescent Supply Co.
Magnes Co., Inc., George R.
Matzinger-Johnson
Phillips & Edwards Elec. Corp.
Sperti-Faraday
Westinghouse Elec. Corp.
Westinghouse Elec. Supply Co.

**Ironers**
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General Electric Co.
General Electric Supply Co.
Hotpoint Div. GE
Westinghouse Electric Corp.

**Kitchen Hoods**
Graybar Elec. Co., Inc.
Keeler, White Co.
Swanson Mfg. Co.

**Kitchens, Steel—Sectional Units**
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Hornstein Bros.
Hotpoint Div., GE
Thermador Elec. & Mfg. Co.
Westinghouse Elec. Corp.

**Knobs, Porcelain, Plastic**
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Gray Co., George A.
Graybar Electric Co.
Hubbard & Co.
Incandescent Supply Co.
Line Material Industries, Div. McGraw-Edison Co.
Maydwell & Hartzell, Inc.
F. M. Nicholas Co.
Phillips & Edwards Elec. Corp.
Porcelain Products Co.
Sierra Elec. Corp.
Shirreffs Co., Jim
Thomas Works, Div. H. K. Porter Co., Inc.
Westinghouse Electric Corp.
Westinghouse Elec. Supply Co.

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Tri-State Supply Corp.

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Electric Service Works, Delta-Star Elec. Div.
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McCabe Powers Body Co.
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Petersen Eng. Co.
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Graybar Elec. Co.
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Line Material Industries, Div. McGraw-Edison Co.
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Graybar Elec. Co.
Hodges &Glomb
Halzmueller Corp.
Hubbell, Inc., Harvey
Incandescent Supply Co.
Matzinger-Johnson Co.
Maddox Sales Co.
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Royal Electric Corp.
Royal Elec. Mfg. Co. Inc.
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Sierra Elec. Corp.
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**Lamps, Fluorescent**
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Brill Electric Sales
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deLeuze Co., Guy
General Elec. Co.
General Electric Supply Co.
Gough Industries, Inc.
Graybar Elec. Co., Inc.
Gratiot Co., C. B.
Holzmueller Corp.
Howard & Assoc., G.M.
Incandescent Supply Co.
Kaufman, Leo
Luxo Lamp Corp.
Noack, Martin
Phillips & Edwards Elec. Corp.
Stubbs Elec. Co.
Westinghouse Elec. Corp.

**Lamps, Incandescent**
Begen Co., M.
The Frank H. Bran Co.
Brill Electric Sales
deLeuze Co., Guy
The Electric Corp.
General Elec. Co.
General Electric Supply Co.
Gratiot Co., C. B.
Graybar Elec. Co.
Holzmueller Corp.
Incandescent Supply Co.
Kaufmann, Leo
Line Material Industries, Div. McGraw-Edison Co.
Luxo Lamp Corp.
Perdue, A. L.
Phillips & Edwards Elec. Corp.
Jim Shirreffs Co.
Stubbs Electric Co.
Versen Co., Kurt
Westinghouse Elec. Corp.
Westinghouse Elec. Supply Co.

**Line Material**
Anderson Elec. Corp.
Brewer-Titchener Co.
Chance Co., A. B.
Gedney Elec. Co.
General Electric Supply Co.
Graybar Elec. Co.
Hubbard & Co.
Incandescent Supply Co.
Industrial Eng. & Equip. Corp.
James R. Kearney Corp.
Kortick Mfg. Co.
Line Material Industries, Div. McGraw-Edison Co.
Insulator Dept., GE Co.
Malleable Iron Fittings Co.
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Penn-Union Elec. Corp.
Phillips & Edwards Elec. Corp.
Randolph Engineering Corp.
Ryals Co., K. M.
Shirreffs Co., Jim
Wrathall & Krusi
Western Hardware & Tool Co.
Westinghouse Elec. Corp.
Westinghouse Elec. Supply Co.

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Briegel Method Tool Co.
Buckingham Mfg. Co.
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Ford Co., T. A.
Graybar Elec. Co., Inc.
Hogg & Davis
Incandescent Supply Co.
Kearney Corp., James R.
Mathias Klein & Sons
Kortick Mfg. Co.
Linemen's Supply Corp. of Calif.
Maddox Sales Co.
Maydwell & Hartzell, Inc.
National Electric Supply Co.
Pacific Utilities Supply Co.
Parrish & Justice
Petersen Eng. Co.
Phillips & Edwards Elec. Corp.
Pomeroy Co., J. G.
Porcelain Products, Inc.
Randolph Engineering Corp.
Ryals Co., K. M.
Safety Live Line Tool Co.
Stubbs Electric Co.
Western Hardware & Tool Co.
Westinghouse Elec. Corp.
Westinghouse Elec. Supply Co.

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Benjamin Elec. Mfg. Co.
The Electric Corp.
General Elec. Co.
General Electric Supply Co.
Graybar Elec. Co.
Incandescent Supply Co.
Kaufmann, Leo
Pacific Utilities Supply Co.
Phillips & Edwards Elec. Corp.
Westinghouse Elec. Corp.
Westinghouse Elec. Supply Co.

**Lamps, Portable, Clamp**
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Bussmann Mfg. Co.
Crouse-Hinds Co.
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deLeuze Co., Guy
General Electric Supply Co.
Gough Industries, Inc.
Graybar Elec. Co., Inc.
Holzmueller Corp.
Howard & Assoc., G.M.
Incandescent Supply Co.
Kaufmann, Leo
Kirk Co., W. E.
Luxo Lamps
Perdue, A. L.
Phillips & Edwards Elec. Corp.
Royal Electric Corp
Royal Elec. Mfg. Co. Inc.
Jim Shirreffs Co.
Stubbs Electric Co.
Versen Co., Kurt
Westinghouse Elec. Corp.
Westinghouse Elec. Supply Co.

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Incandescent Supply Co.
Line Material Industries, Div. McGraw-Edison Co.
Phillips & Edwards Electric Corp.
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Westinghouse Elec. Corp.
Westinghouse Elec. Supply Co.
Wrathall & Krusi

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(See Floodlights)

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General Electric Supply Co.
Graybar Elec. Co., Inc.
Klein & Sons, Mathias
Linemen's Supply Corp. of Calif.
Maydwell & Hartzell, Inc.
Safety Line Tool Co.
Western Hardware & Tool Co.
Wicx-Merit Glove Co.

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Best Linemen's Supply Corp.

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Baxter Co.
Benjamin Elec. Mfg. Co.
Benz Co., Fred D.
Bran Co., Frank H.
BullDog Electric Prod.
Cabot & Associates, Matt
Collyer Ins. Wire Co.
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Levin, M.
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Hartley, Barney H.
Hubbard & Co.
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**Stokers**
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Kearney Corp., James R.
Line Material Industries, Div. McGraw-Edison Co.
Pacific Utilities Supply Co.
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Metcalf & Co., Inc., James I.
Pacific Utilities Supply Co.
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Pope, Forrest E.
Weld-Rite Co.
Westinghouse Elec. Corp.
Westinghouse Elec. Supply Co.
Wrathall & Krusi

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Bethlehem Steel Co.
Columbia-Geneva Steel Div.
Gate City Steel
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Industrial Eng. & Equip. Corp.
U.S. Steel Corp.
Watteredge Co.
Weld-Rite Co.

**Substations, Outdoor and Indoor**
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Arthur & Allen
Columbia Electric Mfg. Co.
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The Electric Corp.
Federal Pacific Elec. Co.
General Elec. Co.
Graybar Elec. Co., Inc.
Honn Co., Geo. E.
Ingalls & Sons, C. E.
I-T-E Circuit Breaker Co.
James R. Kearney Corp.
W. E. Kirk Co.
Line Material Industries, Div. McGraw-Edison Co.
Moloney Elec.
Randolph Engineering Corp.
Royal Elec. Mfg. Co., Inc.
Ryals Co., Ken
S & C Electric Co.
Sorgel Elec. Co.
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The Electric Corp.
Esco Mfg. Co.
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Honn Co., Geo. E.
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Kuhlman Elec. Co.
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Randolph Eng. Corp.
Royal Elec. Mfg. Co., Inc.
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Sorgel Electric Co.
Southern States Equipment Corp.
Square D Co.
Stubbs Electric Corp.
Wagner Elec. Corp.
Westinghouse Elec. Corp.
Westinghouse Elec. Supply Co.

**Supports, Bus-Bar**
Anderson Electric Corp.
Arthur & Allen
Burndy Eng'g Co.
Chance Co., A. B.
Delta Star Elec. Div., H. K. Porter Co., Inc.
Eichorn & Melchoir
The Electric Corp.
Feedrail Corp.
General Elec. Co.
Graybar Elec. Co.
Hodges & Glomb
Honn, Geo. E.
ITECO
Industrial Eng. & Equip. Corp.
Ingalls & Sons, C. E.
Insulator Dept., GE Co.
James R. Kearney Corp.
W. E. Kirk Co.
Lapp Insulator Co.
Line Material Industries, Div. McGraw-Edison Co.
Maydwell & Hartzell, Inc.
Nicholas Co., Fred
O. Z. Elec'l Mfg. Co.
Pacific Utilities Supply Co.
Penn-Union Elec. Corp.
Porcelain Insulator
Porcelain Products, Inc.
Royal Elec. Mfg. Co., Inc.
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S & C Elec. Co.
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Victor Insulators, Inc.
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Westinghouse Elec. Supply Co.
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Graybar Elec. Co., Inc.
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Incandescent Supply Co.
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Federal Pacific Elec. Co.
General Elec. Co.
General Electric Supply Co.
Gough Industries, Inc.
Graybar Elec. Co.
Electrical Material Co.
Hodges & Glomb
Holzmueller Corp.
Honn Co., Geo. E.
Incandescent Supply Co.
I-T-E Circuit Breaker Co.
Herbert Kaub & Co.
Kearns Co., James L.
W. E. Kirk Co.
Meyers Safety Switch Co.
Phillips & Edwards Elec. Corp.
Randolph Engineering Corp.
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Sierra Switchboard Co.
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I-T-E Circuit Breaker Co.
Phillips & Edwards Elec. Corp.
S & C Elec. Co.
Southern States Equip. Corp.
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Edwards Co., Inc.
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Graybar Elec. Co.
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Ripley Co., Inc.
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Crouse-Hinds Co.
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H. K. Porter Co., Inc.
Eagle Electric Mfg. Co., Inc.
Eichorn & Melchior
The Electric Corp.
Electrical Specialty Co.
Federal Pacific Electric
G & W Elec. Specialty Co.
General Elec. Co.
General Electric Supply Co.
General Switch Corp.
Gough Industries, Inc.
Graybar Elec. Co.
Hodges & Glomb
Honn Co., Geo. E.
Incandescent Supply Co.
Industrial Eng. & Equip. Corp.
C. E. Ingalls & Sons
I-T-E Circuit Breaker Co.
KPF Electric Co.
Kearney Corp., James R.
Killark Elec. Mfg. Co.
W. E. Kirk Co.
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McGraw-Edison Co.
Matzinger-Johnson Co.
Maydwell & Hartzell, Inc.
Montgomery Bros.
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Pennsylvania Transformer Co.
Phillips & Edwards Elec. Corp.
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Rising, Inc., H. G.
Royal Elec. Mfg. Co. Inc.
Ryals Co., K. M.
S & C Elec. Corp.
Safety Switchboard Co.
Schwager-Wood
Southern States Equip. Co.
Square D Co.
Stubbs Electric Co.
Turner Electric Corp.
Wadsworth Elec. & Mfg. Co.
Western Switchboard Co.
Westinghouse Elec. Corp.
Westinghouse Elec. Supply Co.
Young Co., Robt. A.
Wrathall & Krusi

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Graybar Elec. Co.
Hubbell, Inc., Harvey
Incandescent Supply Co.
Killark Elec. Mfg. Co.
McGill Mfg. Co.
Phillips & Edwards Elec. Corp.
Pomeroy Co., J. G.
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Westinghouse Elec. Supply Co.

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The Electric Corp.
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Federal Pacific Elec. Co.
General Electric Co.
General Elec. Supply Co.
General Switch Corp.
Gough Industries, Inc.
Graybar Electric Co.
Hodges & Glomb
Honn Co., Geo. E.
Incandescent Supply Co.
Industrial Eng. & Equip. Corp.
Ingalls & Sons, C. E.
Kearney Corp., James R.
W. E. Kirk Co.
Line Material Industries, Div.
McGraw-Edison Co.
Maydwell & Hartzell, Inc.
Phillips & Edwards Elec. Corp.
Pope, Forrest E.
Randolph Engineering Corp.
Rising, Inc., H. G.
S & C Electric Co.
Safety Switchboard Co., Inc.
Square D Co.
Southern States Equip. Corp.
Stubbs Electric Co.
Western Switchboard Co.
Westinghouse Electric Corp.
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Westinghouse Electric Corp.
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G. & W. Elec. Specialty Co.
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General Elec. Supply Co.
Gough Industries, Inc.
Graybar Electric Co.
Honn Co., George E.
Incandescent Supply Co.
Industrial Eng. & Equip. Corp.
Ingalls & Sons, C. E.
KPF Electric Co.
James R. Kearney Corp.
W. E. Kirk Co.
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McGraw-Edison Co.
Matzinger-Johnson Co.
Maydwell & Hartzell, Inc.
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Phillips & Edwards Elec. Corp.
Pope, Forrest E.
Randolph Engineering Corp.
R I & E Equip. Div.
Rising, Inc., H. G.
Royal Elec. Mfg. Co., Inc.
Ryals Co., Ken
S & C Elec. Co.
Schwager-Wood
Southern States Equip. Corp.
Square D Co.
Stubbs Electric Co.
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Westinghouse Electric Corp.
Westinghouse Elec. Supply Co.
Young Co., Robt. A.

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General Electric Co.
Graybar Elec. Co.
Hodges & Glomb
Incandescent Supply Co.
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Maydwell & Hartzell, Inc.
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Silverman, Roy
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Sierra Elec. Corp.
Wesco Electrical Distributors
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Federal Pacific Electric
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Hodges & Glomb
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Phillips & Edwards Elec. Corp.
Rising, Inc., H. G.
Silverman, Roy
Square D Co.
Wesco Electrical Distributors
Westinghouse Elec. Corp.
Westinghouse Elec. Supply Co.

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Burcham Co., Don H.
Cook, E. B.
deLeuze Co., Guy
Edwards Co., Inc.
Easterbrook, H. D.
The Electric Corp.
Fisher Switches
Furnas Elec. Co.
General Elec. Co.
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Graybar Elec. Co.
Keeler, White Co.
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Rising, Inc., H. G.
Sangamo Elec. Co.
Sierra Elec. Corp.
Silverman, Roy
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Tork Time Controls
Wesco Electrical Distributors
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Cook, E. B.
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The Electric Corp.
General Electric Co.
General Electric Supply Co.
Gray Co., George A.
Graybar Elec. Co., Inc.
Hubbell, Inc., Harvey
Incandescent Supply Co.
Industrial Eng. & Equip. Co.
Pass & Seymour, Inc.
Phillips & Edwards Elec. Corp.
Pomeroy Co., J. G.
Porcelain Products, Inc.
Rising, Inc., H. G.
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Slater Elec. Mfg. Co., Inc.
Square D Company
Westinghouse Elec. Corp.
Westinghouse Electric Supply Co.

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Brill Electric Sales
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Cook Co., E. B.
Delta Star Elec. Div.
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The Electric Corp.
Everley Co., Paul S.
Federal Pacific Electric Co.
General Electric Co.
General Electric Supply Co.
Gough Industries, Inc.
Graybar Elec. Co.
Honn Co., Geo. E.
Incandescent Supply Co.
Industrial Eng. & Equip. Co.
Ingalls & Sons, C. E.
I-T-E Circuit Breaker Co.
W. E. Kirk Co.
Line Material Industries, Div. McGraw-Edison Co.
Matzinger-Johnson Co.
Metcalf & Co., Inc., James I.
Phillips & Edwards Elec. Corp.
Randolph Engineering Corp.
Rising, Inc., H. G.
Routh Co., T. R.
Royal Elec. Mfg. Co., Inc.
Ryals Co., K. M.
S & C Elec. Co.
Safety Switchboard Co.
Sierra Switchboard Co.
Square D Co.
Southern States Equip. Corp.
Smith Co., Lombard
Stubbs Electric Co.
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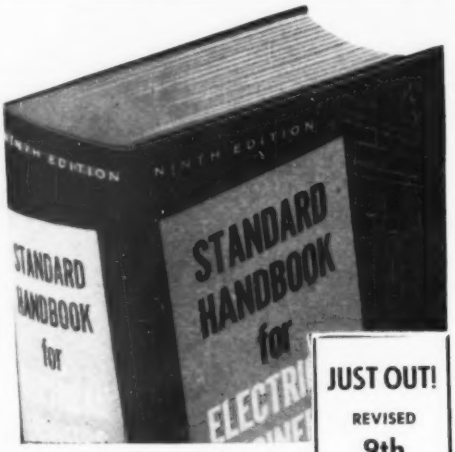


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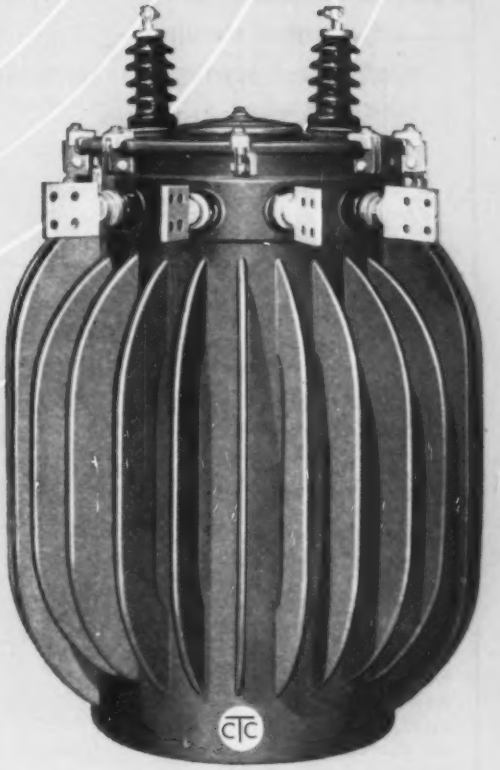


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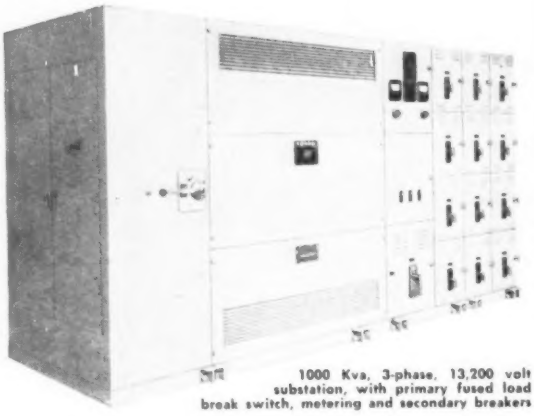

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Westinghouse Elec. Supply Co.

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FWD Co.
Graybar Elec. Co., Inc.
Holan Corp., J. H.

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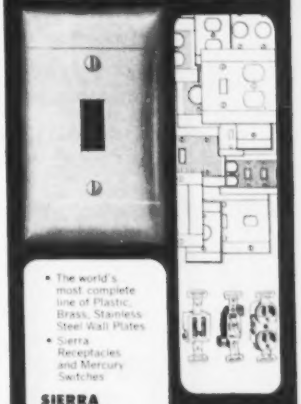

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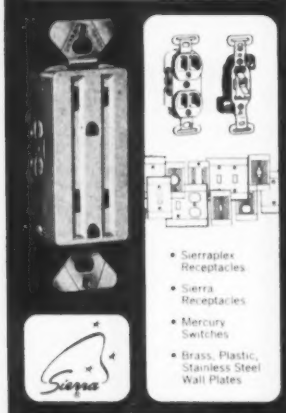


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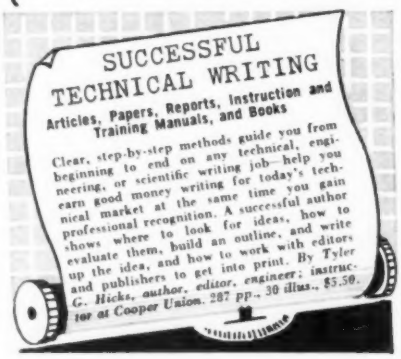


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### Los Angeles Area

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**AIREY CO., INC., F. J.,** 1513 Mateo St.

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**ANDERSON COMPANY, KENNETH,** 123 S. Myers St.

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**BRAN CO., FRANK H.,** 607 E. 6th St.

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**CALREPCO, 1417 Georgia St. (See Adv. page 103.)**

**CLAPP COMPANY, R. B.,** 5404 Alhambra Ave.

**COHN & SHANE,** 1323 Venice Blvd.

**CONDON, EARL S., 3450 Wilshire Blvd. (See Adv. page 83.)**

**CONTROL SWITCHES, INC.,** 6214 W. Manchester.

**COOMBS SALES COMPANY, O. W.,** 1026 So. Oliver

**CORMAN, WALTER W.,** 7432 W. 80th St.

**CORRIN, JOHN G.,** 510 W. 6th.

**CUNNINGHAM & SON, R. E.,** 530 W. 6th St.

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**ECKERT-LLOYD CORP.,** 1950 Naomi Ave.

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**GARNETT YOUNG & CO.,** 3775 Broadway So.

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**GOEBEL, W. J.,** 225 West 23rd

**GOLSAN, JR., PAGE E.,** 1421 So. Flower

**GOUGH INDUSTRIES, INC., 819 East First (See Adv. page 44.)**

**GRAYBAR ELEC. CO., INC., 210 Anderson (See Adv. page 21.)**

**HALDEMAN, INC., HARRY F., 2401 So. Hill St.**

**HAYJAX CO.,** 436 Colyton St.

**HENGER-SELTZER CO.,** 120 So. Hewitt.

**HOLMES, CARL E.,** 107 No. Ave. 64.

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**HUNDLEY CO.,** 3282 Fletcher Dr.

**INDUSTRIAL ENGINEERING & EQUIP., 2975 Wilshire Blvd. (See Adv. page 20.)**

**JENSON INSTR. CO.,** 1919 Beverly Blvd.

**JACKSON EDWARDS CO.,** 4101 Lankershim, North Hollywood

**JOSLYN PACIFIC COMPANY,** 5100 District Blvd.

**KANDELL, MORTON,** 36-13 Meadville Dr., Sherman Oaks

**KEELER, WHITE CO.,** 436 Colyton St.

**KIRK CO., W. E., 415 Wall St. (See Adv. page 51.)**

**KNIGHT COMPANY, W. BERT,** 10377 West Pico Blvd.

**KRAUSE ENGINEERING,** 741 E. Artesia St., Long Beach

**LaMOREE, C. D., 2433 Birkdale (See Adv. page 88.)**

**LEICH SALES CORP.,** 11401 W. Pico Blvd.

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**LYNN & BROOKS,** 3055 Wilshire Blvd.

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**MARKMAN CO., R. MARK,** 4260 Lankershim, North Hollywood

**MARSH COMPANY, J. W.,** 4216 W. Jefferson.

**MATZINGER-JOHNSON CO., 1329 Willow St. (See Adv. page 58.)**

**MAYDWELL & HARTZELL, INC., 427 W. 5th St. (See Adv. page 30.)**

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**McLOUGHLIN CO.,** 811 E. 14th Pl.

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**MURPHY-HAIN CO.,** 2133 Bay St.

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**PAULES, E. O.,** 1762 W. Vernon Ave.

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**PERLMUTH ELECTRONICS ASSOCIATES,** 5057 W. Washington Blvd.

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**PORTER COMPANY, DON,** 1117 So. Robertson.

**PREFERRED EQUIPMENT, INC.,** 4232 E. Whiteside

**QUALITY ELECTRIC CO., LTD.,** 1235 E. Olympic.

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**RISING, INC., H. G., 151 N. Vermont (See Adv. page 98.)**

**ROBERTS & ASSOCIATES, E. V., 5068 W. Washington Blvd.**

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### Oakland

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**CERESKE, WILLIAM S., 1401 Middle Harbor Road (See Adv. pages 81, 84, 96, 103.)**

**CHEMNITZ CO., ERIC F.,** 1096 Yerba Buena Ave., Emeryville

**GRAYBAR ELECTRIC CO., INC., 1911 Union St. (See Adv. page 21.)**

**HILL & DEITRICK,** 417 E. 10th St.

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**MONTGOMERY BROS., INC., 1331 T St.** (See Adv. page 73.)

**PERDUE, A. L., 4305 Ravenwood Ave.** (See Adv. page 55.)

## San Diego

**GRAYBAR ELEC CO., 720 State St.** (See Adv. page 21.)

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**WARE & ASSOCIATES, JOHN ALLEN,** 301 West G St.

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**ANGUS-CAMPBELL, INC.,** 760 Tennessee St.

**ARTHUR & ALLEN, 420 Market St.** (See Adv. page 82.)

**ARTWEL ELECTRIC, INC., 1485 Bayshore Blvd.** (See Adv. page 81.)

**ASHTON, WM.,** 50 Hawthorne St.

**BABCOCK, STEPHEN,** 3573 Pierce St.

**BARABA, E. J. G., 680 Sutter St.** (See Adv. page 85.)

**BAUM, R. E.,** 861 Market St.

**BAXTER COMPANY, 101 Kansas St.** (See Adv. page 4.)

**BEGEN CO., M., 1683 Jerrold Ave.** (See Adv. page 88.)

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**BELILOVE CO.,** 420 Market St.

**BENZ CO., FRED D., 520 4th St.** (See Adv. page 88.)

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**BRILL ELEC. SALES, 446 Bryant.** (See Adv. page 98.)

**CADY, J. F.,** 1485 Bayshore Blvd.

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**CAMPBELL-GEORGE CO.,** 1601 Cortland.

**CERRUTI & ASSOCIATES,** 841 Woodside Road #3, Redwood City

**COOK COMPANY, E. B., 1063 Howard St.** (See Adv. page 97.)

**CURRY CO., 305 King St.** (See Adv. page 93.)

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**GRAY, GEO. A., 2720 17th St.** (See Adv. page 79.)

**GRAYBAR ELECTRIC CO., INC., 1750 Alameda** (See Adv. page 21.)

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**HODGES & GLOMB, 921 Bryant St.** (See Adv. page 95.)

**HOLZMUELLER CORP., 360 Nth St.** (See Adv. page 86.)

**HONN COMPANY, GEORGE E., 420 Market St.** (See Adv. page 15.)

**HORNSTEIN BROS., P. O. Box 3170, Alameda and Illinois Sts.** (See Adv. page 56.)

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**INCANDESCENT SUPPLY CO., 647 Mission St.** (See Adv. page 78.)

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**KAUFMANN, LEO, 72 Sacramento St.** (See Adv. page 86.)

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**LUNDY, RALPH B.,** 1063 Howard St.

**LYMAN, OLIVER B.,** 55 New Montgomery St.

**MADDOX CO., JOHN,** 420 Market St.

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**MAYDWELL & HARTZELL, INC., 870 Tennessee** (See Adv. page 30.)

**METCALF & CO. INC., JAMES I., 260 Kearney St.**

**MEYERS SAFETY SWITCH, 423 Tehama St.** (See Adv. page 95.)

**MONTGOMERY BROTHERS, 1122 Howard St.** (See Adv. page 73.)

**MUNDSTOCK, JAMES,** 417 Market St.

**NATIONAL ELECTRIC SUPPLY CO., No. 1 14th St.** (See Adv. page 103.)

**NICHOLAS COMPANY, F. M., 714 Harrison.** (See Adv. page 104.)

**NOACK, MARTIN,** 681 Market St.

**NORTHWEST SALES & ENGINEERING SERVICE,** 420 Market St.

**NOTT, L. A., 1061 Howard St.** (See Adv. page 92.)

**PACIFIC SCIENTIFIC CO.,** 760 Harrison St.

**PACIFIC UTILITIES SUPPLY CO., 605 Third St.** (See Adv. page 55.)

**PARRISH & JUSTICE CO., 1355 Bush** (See Adv. page 90.)

**PETERS-de LAET, INC.,** 1605 Rollins Rd., Burlingame

**PHILLIPS & EDWARDS ELEC. CORP., 265 Vermont.** (See Adv. page 78.)

**PIMPER MACHINERY CO., T. F.,** 458 Brannan St.

**POPE, FORREST E., P. O. Box 249, Burlingame** (See Adv. page 91.)

**PURDY, W. J.,** 312 7th St.

**RADKE, DAN H.,** 754 Natoma St.

**ROUTH CO., T. D.,** Box 1056, Burlingame

**RYALS CO., K. M., CO., 461 Market St.** (See Adv. page 54.)

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**STANLEY SALES CORP.,** 1122 Folsom St.

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**TRI-STATE SUPPLY CORP., 554 Bryant St.** (See Adv. page 33.)

**WESTERN HARDWARE & TOOL CO., 122 10th St.** (See Adv. pages 80, 82, 93.)

**WESTINGHOUSE ELEC. SUPPLY,** 201 Potrero.

**WRATHALL & KRUSI, 681 Market St.** (See Adv. page 6.)

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**ELECTRICAL SPECIALTY CO.,** 210 W. Adams

**GARNETT YOUNG & CO.,** 345 E. Pasadena.

**GRAYBAR ELEC. CO., 1700 No. 22nd Ave.** (See Adv. page 21.)

**HARTLEY, BARNEY H., 708 Willetta West** (See Adv. page 92.)

**HOWE HOWE SALES,** 4328 N. 42nd

**INDUSTRIAL ELECTRIC PRODUCTS, INC., 212 S. 7th Ave.**

**MATHEWSON, ROBERT S.,** 8325 N. 9th Ave.

**MAYDWELL & HARTZELL, INC., 324 S. 2nd Ave.** (See Adv. page 30.)

**PARRISH & JUSTICE CO., 3111 N. 34th Place** (See Adv. page 90.)

**REDMOND SUPPLY COMPANY, J. E.,** 625 W. Madison St.

**ROSS, NORMAN F.,** 4227 N. Monte Vista Dr., Scottsdale

**SHEFLER-KAHN CO.,** 240 S. 1st Ave.

**TWEEDY CO., R. E.,** 914 W. Madison

**WARE & ASSOCIATES, JOHN ALLEN,** 721 West Buchanan

**WENDLING, RAY E.,** P. O. Box 3721

# COLORADO

## Denver

**BACON'S,** 1240 S. Elizabeth.

**BELT & CO., C. D.,** 2149 So. Clermant

**CARPENTER CO., ALLEN B.,** 1314 Wazee St.

**CLOOS, GREGG N.,** 977 Jackson.

**CLUPHF, STAN, & ASSOCIATES,** 75 S. Cady Court

**CONDON, HOWARD F.,** 3001 Elm St.

**DAWSON, JIM,** 661 Delaware St.

**E & M EQUIPMENT CO.,** 2415 15th St.

**ELECTRICAL SPECIALTY CO.,** 2026 Arapahoe

**FLORANCE & ASSOCIATES,** 2052 Humboldt.

**GAER SALES,** 1223 Quivas

**GENERAL ELECTRIC SUPPLY CO., 1429 18th St.** (See Adv. page 89.)

**GRAYBAR ELECTRIC CO., INC. 104 Wazee Market.** (See Adv. page 21.)

**GUIRE, H. C.,** 715 S. York.

**HAMILTON & ASSOCIATES, R. F.,** 1236 Elati

**HENDRIE & BOLTHOFF CO.,** 1635 17th St.

**HYDE ELECTRONICS CO.,** 888 S. Lipan

**KAMPHAUSEN COMPANY, DAN, Continental Oil Building. (See Adv. page 39.)**
**KAUB & COMPANY, HUBERT,** 1025 Santa Fe Dr.
**KRIPPNER & POLLEY,** No. 1 Downing
**McLOUD & RAYMOND,** 5403 E. Evans.
**MEISLAHN, RALPH,** 1632 17th St.
**PEARSON CO., MEL,** 1860 S. Acoma.
**R & M SALES CO.,** 2214 So. Clayton
**REAM CO., HARRY F.,** 1216 Santa Fe Dr.
**SALES ENGINEERS, INC.,** 211 Wazee Market
**SCHUMANN COMPANY, KENNETH B.,** 1073 Galapago St.
**SLAYBAUGH-THOMPSON CO.,** 100 W. 13th Ave.
**SOLEN CO., ALBERT M.,** 3029 E. 42nd Ave.
**STAIBLE & SONS, FRED E.,** 2046 Arapahoe.
**STEARNS-ROGER MFG. CO.,** 660 Bannoch
**THOMAS INDUSTRIES, INC.,** 1421 Pontiac
**VIEAU & ASSOC., T. J.,** 1871 S. Broadway
**WILLIAMS ASSOCIATES,** 2261 So. Albion St.

## MONTANA—Butte

**McDONOUGH CO., R. E.,** 829 Maryland Ave.

## NEW MEXICO—Albuquerque

**BENNDORF CO., WM.,** 4204 Palo Duro N. E.
**BLACK, RALPH B.,** 4716 Trumbull, S. E.
**CARDER, JR. CO., THE JOHN,** 1624 N. 1st St.
**ELECTRIC SUPPLY CO.,** 609 No. Broadway
**HYDE ELECTRONICS CO.,** 5206 Constitution Ave. N. E.
**McGILLAN SALES CO.,** P. O. Box 4013.

## OREGON—Oswego

**LEHL, HENRY G.,** 14280 S. W. Uplands Dr.

### Portland

**BACH ELECTRIC, PETE,** 1233 N. W. 12th Ave.
**BRUCE-EMMET CO.,** 830 S. E. Alder
**BURCHAM COMPANY, DON H., 510 N. W. 19th Ave. (See Adv. page 92.)**
**CARLSON, FRED,** 935 N. W. 12th
**COAST ELECTRIC & MFG. CO.,** 1733 N. E. 7th Ave.
**COTTRELL CO., WM. J.,** 4000 S. W. Macadam Ave.
**EDSTROM, J. E.,** 1224 S. W. Morrison St.
**ENGLISH, NELSON,** 1231 N. W. Hout St.
**GARLAND-AFFOLTER ENG. CORP.,** 1233 N. W. 12th Ave.
**GARNETT YOUNG & CO.,** 1238 N. W. Glisan
**GENERAL ELEC. SUPPLY CO., 300 N. W. 14th. (See Adv. page 89.)**
**GRAYBAR ELECTRIC CO., INC. Park & Flanders Sts. (See Adv. page 21.)**
**GLEASON & ASSOCIATES, DONALD S.,** 629 N. Russell.
**GUENTHER-TATE,** 139 S. E. Taylor St.
**KEARNS, JAMES L. CO. INC.,** 6055 N. E. Glisan.
**KEELER, WHITE—PORTLAND,** 322 N. W. 4th Ave.
**LEVIN, M., 205 N.W. 10th (See Adv. page 74.)**
**MAYDWELL & HARTZELL, INC., 2318 N. W. Vaughn. (See Adv. page 30.)**
**MONTGOMERY BROS., 1632 N. W. Johnson St. (See Adv. page 73.)**
**NORTHWEST SALES CO.,** 1603 N. W. Johnson.
**POLICH, INC., ANDREW L.,** 734 N. W. Glisan St.
**PROBY & ASSOCIATES, WM.,** 1308 N. W. Everett
**RIGGS, INC., C. E.,** 422 N. W. 8th.
**SHAFFER & NELSON,** 139 S. E. Taylor
**STUBBS ELECTRIC CO., 33 N. W. Park Ave. (See Adv. page 73.)**
**TUDOR & ASSOCIATES, INC., J. A.,** 1004 S. E. Belmont
**WESTINGHOUSE ELEC. SUPPLY CO.,** 134 N. W. 8th Ave.
**WHEAT & SON, W. W.,** P. O. Box 4251.
**WIANT PRODUCTS,** 1231 N. W. Hoyt

## UTAH

### Salt Lake City

**ARIEL DAVIS SUPPLY CO.,** 171 West So. Temple
**CONELY ENG. CO.,** 165 So. 1st West St.
**CONTROLS ENGINEERING & SALES,** 1150 E. 5th South
**DARGER CO., THE,** 211 South 2nd West St.
**ELECTRIC SPECIALTY CO.,** 2588 Simpson Ave.
**ELGGREN & SONS CO., A. J.,** 212 West 4th South
**GENERAL ELECTRIC SUPPLY CO., 312 West 2nd South St. (See Adv. page 89.)**
**GRAYBAR ELECTRIC CO., INC. 336 N. 3rd West St. (See Adv. page 21.)**
**LAGERSTROM CO., KEITH,** 1225 E. 8750 S., Sandy
**NICKERSON MACHINERY CO.,** 271 S. W. Temple St.
**PACE TURPIN & CO.,** 1855 Michigan Ave.
**REYNOLDS CO., J. W.,** 1481 So. Main
**SLUSSER, LEONARD M.,** 318 Dooly Bldg.
**SPENCER & CO.,** 210 W. 3300 South
**STEVENS SALES CO.,** 1482 Major St.
**STONE, CARLOS W.,** 2003 Parley's Blvd.
**VAN WAGONER CO., T. R.,** 1415 S. Main
**WESTINGHOUSE ELEC. SUPPLY CO.,** 210 Rio Grande St.
**WILLIAMS EQUIP. & CONTR. CO.,** 204 Dooly Bldg.

## WASHINGTON

### Seattle

**BACKER COMPANY, JAMES J.,** 221 W. Galer
**BEST LINEMEN'S SUPPLY CORP., 541 1st Ave. South. (See Adv. page 80.)**
**BRUCE-EMMET CO.,** 1016 1st Ave.
**BURCHAM CO., DON H., 422 1st Ave. West (See Adv. page 92.)**
**CARLSON, FRED W.,** 1201 Dexter.
**COLLINS-GILLETT CO.,** 2501 Crestmont Place
**EICHER & COMPANY,** 5 West Harrison St.
**ELECTRIC AGENCIES,** 506 2nd Ave.
**ENGLISH, R. C. & ASSOCIATES,** 4229 122nd Ave. S. E., Bellevue
**GARLAND-AFFOLTER ENG. CORP.,** 2603 Western Ave.
**GARNETT YOUNG & CO.,** 1928 1st Ave. South.
**GENERAL ELECTRIC SUPPLY CO., 1212 1st Ave. South. (See Adv. page 89.)**
**GLEASON & ASSOCIATES, DONALD S.,** 4710 University Way
**GRAYBAR ELECTRIC CO., INC. King & Occidental. (See Adv. page 21.)**
**GUENTHER TATE CO.,** 825 Taylor St.
**JOHNSTON, RAY,** 1011 E. 69th
**JONES, ROBT. E.,** 444 Dexter Horton Bldg.
**KEELER, WHITE INC.,** 1041 6th Ave. So.
**MAYDWELL & HARTZELL, INC., 306 Dexter Ave. (See Adv. page 30.)**
**MONTGOMERY BROS., 911 Western Ave. (See Adv. page 73.)**
**MUSGRAVE & CO., MERRILL N.,** 2019 3rd Ave.
**MUTH-RICHARDS CO.,** 1804 Bush Place.
**NORTHWEST DISTRIBUTORS,** 1864 South 120th
**NORTHWEST SALES & ENG. SERVICE,** Terminal Sales Bldg.
**NORTHWESTERN AGENCIES, INC.,** 4130 First Ave. South.
**PARSONS & CO., C. B.,** 3028 First Ave.
**PENNING, J. R.,** 2323 2nd Ave.
**PLATT, JOHN C.,** 111 Bell St.
**PORTER CO., BURT C.,** 1209 Poplar Place.
**POZZA & ASSOCIATES, A. G. "ANDY",** 6112 Ranier Ave.
**PROBY BROTHERS,** 2915 13th S. W.
**SANDERLIN COMPANY,** 129 1st Ave. West.
**SCHACK & CO., ED B.,** 2218 1st Ave.
**SCHARR, FREEMAN C.,** 1500 Westlake Ave. No.
**SCHULTZ CO., N. R.,** 4227 Airport Way
**SHAFFER & NELSON,** 312 Occidental Ave.
**STROHECKER CO., F. A.,** 2207 1st Ave. So.
**STROUM, S. N.,** 1612 Broadway
**STUMPH, J. H.,** 1000 Fourth Ave., South.
**TECHNICAL SALES CO.,** 1731 First South
**TRI-STATE SUPPLY CO., 322 Occidental Ave. (See Adv. page 33.)**
**TUDOR, J. A., & ASSOCIATES, INC.,** 2605 Western Ave.
**WESTINGHOUSE ELEC. SUPPLY CO.,** 1051 1st Ave., South.
**WHEAT & SON, W. W.,** 2219 4th Ave.
**WILL, E. A.,** 534 1st Ave., South.
**WOOD, THOMAS S.,** 220 9th Ave.

### Spokane

**BRUCE-EMMETT CO.,** No. 5293 Drumheller
**GRAYBAR ELECTRIC CO., INC. West 1033 Gardner Ave. (See Adv. page 21.)**
**MAYDWELL & HARTZELL, INC., 121 S. Monroe. (See Adv. page 30.)**
**MONTGOMERY BROS., INC., 5103 N. Hawthorne (See Adv. page 73.)**
**TINLING & POWELL,** E. 706 Sprague Ave.

### Tacoma

**GRAYBAR ELEC. CO., 2112 "A" St. (See Adv. page 21.)**
**HAGGARD, PAUL K.,** 4431 No. 7th
**STEARNS SALES CO.,** Rt. 6, Box 945

## HAWAIIAN ISLANDS

### Honolulu

**CABOT & ASSOCIATES Mail, P. O. Box 3708. (See Adv. page 79.)**
**DOUGHERTY ENTERPRISES,** 149 Kaimi, Kailua
**FERRY CO., JIM P.,** 1169 Kapiolani
**MAKINNEY (Hawaii),** P. O. Box 1577

# ADVERTISERS AND WESTERN SALES OFFICES

**Accurate Mfg. Co.**
San Francisco: The Curry Co. ..... YUkon 2-0788
Los Angeles: F. J. Airey Co. .... MAdison 3-2706
Seattle: Electric Agencies ..... MAin 3-2360
Denver: L. B. Putnam Co. ..... YAbor 5-5066
Salt Lake City L. B. Putnam Co. ElGin 5-5558

**Advance Transformer Co.**
Los Angeles: Ray J. Noel Co. AXminster 2-0191
San Francisco: Ray J. Noel Co. .. HEmlock 1-2176
Portland: Pete Bach Electric ..... CApitol 7-2173
Denver: A. J. Nelson ..... KEystone 4-6751
Mercer Island, Wn. ..... ADams 2-8795
Albuquerque ..... CHapel 2-8626

**ALL-Brite Lighting Div.**
South San Francisco ..... PLaza 5-7077
Monterey Park, Calif. ..... ANgeles 8-1144
Seattle ..... EAst 5-9600
Denver ..... SKyline 6-1668

**Allen-Bradley Co.**
Los Angeles ..... ANgelus 9-9421
San Francisco: Campbell & George ..... MIssion 8-1236
Denver: Young Electric ..... AComa 2-4841
Albuquerque: A & A Supply ..... ALpine 6-0307
Salt Lake City: Stevens Sales ... INgersoll 7-5489
Phoenix: Edw. P. Weller ..... AMherst 6-3188
Seattle: J. A. Tudor Associates .. MUtual 2-7444
Portland: J. A. Tudor Associates . BElmont 2-1188

**Allis-Chalmers Mfg. Co.**
San Francisco ..... DOuglas 2-8384
Los Angeles ..... MAdison 6-2231
Phoenix ..... CRestwood 4-5426
Denver ..... CHerry 4-6556
Salt Lake City ..... EMpire 3-1723
Portland ..... CApitol 2-9835
Seattle ..... MAin 4-3737

**Allis-Chalmers Hydraulic Div.**
San Francisco ..... DO 2-8384

**Aluminum Co. of America**
San Francisco ..... YUkon 6-6484
Los Angeles ..... HUntley 2-2684
Denver ..... DUdley 8-1619
Spokane ..... RIverside 7-6124
Seattle ..... MAin 4-4040
Portland ..... CApitol 2-9861
Boise ..... 2-8038

**Alwalt Mfg. Co.**
Modesto ..... LAmbert 4-5281
San Francisco: Brill Elec. Sales .... SUtter 1-7547
Los Angeles: O. W. Coombs ... RIchmond 7-0603
Phoenix: Gunther & Tate ..... CRestwood 7-1662
Denver: Kenneth W. Schumann Co. ..... AComa 2-8913
Seattle: Gunther & Tate Co. ..... SEneca 0373
Portland: Gunther & Tate Co. ... BElmont 4-7301

**American Brass Co. (See Anaconda)**

**American Pamcor, Inc.**
Los Angeles (Hawthorne) ..... ORegon 8-5284
Burlingame: Peters-deLaat, Inc. .. OXford 7-1800

**American Steel & Wire Div., U. S. Steel Corp.**
Columbia Geneva Steel Div. in following cities:
San Francisco ..... SUtter 1-2500
Los Angeles ..... LUdlow 5-1171
Portland ..... CApitol 2-9534
Seattle ..... MAin 2-1972
Salt Lake City ..... DAvis 2-0491

**Anaconda Wire & Cable Co.**
San Francisco ..... YUkon 6-0051
Los Angeles ..... MAdison 6-2371
Denver ..... AComa 2-0616
Salt Lake City ..... DAvis 8-0616
Seattle ..... MAin 3-4686

**Anderson Electric Corp.**
San Francisco ..... YUkon 2-1640
San Francisco: Wrathall & Krusi . EXbrook 7-3593
Los Angeles: Industrial Engineering & Equip. Corp. ..... DUnkirk 1-1281
Seattle: Muth-Richards Co. ..... EAst 3-2128
Portland: L. Polich, Inc. ..... CApitol 3-6241
Salt Lake City: Clarence W. Silver . ElGin 5-5378
Denver: Hamilton Associates ..... CHerry 4-1505

**Arvin Industries, Inc.**
San Francisco: D. E. Sanford Co. MArket 1-0303
Los Angeles: Floyd Yudelson ... DUnkirk 7-6121
Portland: Earl B. White ..... ALpine 3-3226

**Atomics International Div. North American Aviation Inc.**
Canoga Park, Calif. ..... DIamond 7-0200

**Auto Hot-Stick Rentals, Inc.**
Compton, Calif. ..... NEwmark 8-2773

**Baldwin-Lima-Hamilton**
San Francisco ..... MIssion 7-6781
Los Angeles ..... MAdison 6-5631
Portland ..... BElmont 2-4174
Seattle ..... MAdison 4-5420
Denver ..... ATlas 8-2684
Salt Lake City ..... HUnter 5-0293

**Bechtel Corp.**
San Francisco ..... DOuglas 2-4032
Los Angeles ..... MAdison 6-6721

**Benjamin Elec. Mfg. Co.**
(subsidiary of Thomas Ind. Inc.)
Burlingame, Calif. ..... OXford 7-1036
Los Angeles ..... OVerbrook 5-8050
Portland ..... CHerry 4-7214
Bellevue ..... ElGin 1-6617
Spokane ..... FAirfax 7-3278
Salt Lake City ..... ElGin 5-2322
Denver: James Blinn Co. ..... KEystone 4-8131

**Berke Electric Mfg. Corp.**
San Mateo, Calif.: Robert Thallon ..... FIreside 1-4575
Seattle: Walter Yund ..... LAkeview 2-1744
Denver: Kenneth B. Schumann ... AComa 2-8913
Sherman Oaks, Calif.: Morton Kendell ..... STanley 9-8090

**Blackburn Corp., Jasper**
San Francisco: Donald E. Ingalls JUniper 6-0332
Los Angeles: Robert M. Schow . HUbbard 3-7931
Vancouver, Wn.: Wm. A. Horning . OXford 4-4475
Phoenix: W. C. Osborn ..... WIndsor 3-1815
Denver: Sales Engineers Co. ..... AComa 2-4893
Salt Lake City: Sales Engineers (James D. Stephens) ..... EMpire 3-7402

**Brown Boveri Corp.**
Portland ..... CApitol 3-7234
San Francisco: Bellfove Co. ..... YUkon 2-3713
Pasadena: A. B. Smedley ..... SYcamore 8-1174
Denver: Slaybaugh-Thompson Co. . AComa 2-5826

**Brown Co.**
San Francisco ..... YUkon 2-1986
Sold through Westinghouse Electric Supply offices below:
Los Angeles ..... MAdison 9-4161
Phoenix ..... ALpine 8-8211
Seattle ..... MAin 3-7001
Portland ..... CApitol 2-9851
Spokane ..... FAirfax 8-3371
Salt Lake City ..... DAvis 2-2441
San Diego: Elec. Supplies Dist. Co. ..... BElmont 2-8161
Denver: Mine & Smelter Supply Co. ..... KEystone 4-3111

**Buchanan Electrical Products Corp.**
Los Angeles: Frank Rozema ... MAdison 9-3855
Denver: Fred A. Pease Co. ..... DUdley 8-4643
Portland: Keeler-White ..... CApitol 7-0593
Seattle: Keeler, White, Inc. ..... MAin 3-2367
Vancouver, B.C., Walter McHugh . CHerry 3034

**BullDog Electric Products Div., I-T-E Circuit Breaker Co.**
Oakland: Safety Switchboard Co.
Los Angeles: BullDog Elec. Products of L. A. ..... ANgelus 9-8101
Portland: Coast Elec. & Mfg. Co. . ATlantic 8-5373
Denver: Young Elec. & Mfg. Co. ... AComa 2-4841

**Burndy Corp.**
Shaffer & Nelson, Inc. following cities:
Portland ..... BElmont 4-7437
Seattle ..... MUtual 2-0186
Spokane ..... FAirfax 7-9528
San Francisco: George E. Honn Co. ..... SUtter 1-7352
Los Angeles: Earl S. Condon Co. ..... DUnkirk 1-3951
Denver: Peterson Co. ..... DExter 3-5434

**Bussmann Mfg. Division**
San Francisco ..... UNderhill 3-2600
Los Angeles ..... MAdison 5-1954
Seattle ..... EMerson 2-2085
Denver ..... FRemont 7-1357

**Carol Cable Div., Crescent, Inc.**
San Francisco: F. M. Nicholas ..... Yukon 2-1964
Los Angeles: Jack Payne Co. .... MAdison 4-7317
Seattle: Bruce-Emmett Co. ..... MUtual 2-6737
Portland: Bruce-Emmett Co. .... BElmont 2-8117

**Ceilheat, Inc.**
San Francisco: G. M. Howard & Assoc. ..... MArket 1-6759
Los Angeles: Page E. Golsen . Richmond 7-5486
Portland: R. E. Riedar ..... BElmont 6-4936
Denver: Ben T. Clark ..... MAin 3-2011
Phoenix: Ralph L. Mooney .... AMherst 6-2885

**Central Transformer Corp.**
San Francisco: F. M. Nicholas Co. . YUkon 2-1964
Glendale, Calif.: Robert A. Young & Co. ..... CHapman 5-3721
Albuquerque: McGillan Sales Co. . Phone: 5-3239
Salt Lake City: Gates Co. ..... ElGin 9-1101
Denver: Hubert Kaub & Co. ..... MAin 3-4606
Shaffer & Nelson, Inc., in following cities:
Portland ..... BElmont 4-7437
Seattle ..... MUtual 2-0186
Spokane ..... FAirfax 7-9528

**Ceroske Co., Wm.**
Oakland ..... TEmplebar 2-3546

**Chance Co., A. B.**
San Francisco ..... MIssion 7-1300
Seattle ..... MUtual 2-8920
Portland ..... CApitol 8-3866
Los Angeles ..... LUdlow 2-1090

**Chase-Shawmut Co.**
Garnett Young & Co. following Cities:
San Francisco ..... DOuglas 2-4220
Los Angeles ..... ADams 1-4337
Seattle ..... MAin 3-0123
Portland ..... CApitol 8-8478
Phoenix ..... BRidge 5-7826
Denver: Allen B. Carpenter . KEystone 4-0283

**Circle AW Products**
(See Alwalt Mfg. Co.)

**Circle Wire & Cable Co.**
San Francisco: Brill Electric Sales . SUtter 1-7547
Los Angeles: Elkins Electric Agency ..... ANgelus 8-3385
Seattle: Electric Agencies ..... MAin 3-2360

**Clifton Conduit Div. General Cable**
San Francisco: The Baxter Co. ... MArket 1-8636
Los Angeles: Michel Bros. .... AXminster 2-9191
Seattle: Northwestern Agencies .... MAin 3-8882
Portland: Northwest Sales Co. . CApitol 3-5959

**Columbia Cable and Elec. Corp.**
San Francisco: The Magnes Co. . EXbrook 7-5663
Los Angeles: Frank H. Bran Co. MAdison 4-7663
Portland: The Sanderlin Co. .... BElmont 5-0121
Seattle: The Sanderlin Co. ..... ATwater 4-7777

**Condon Co., Earl S.**
Los Angeles ..... DUnkirk 1-3951

**Conduit Nipple Mfg. Co.**
San Francisco: George Gray .... HEmlock 1-1526
Los Angeles: Hayjax Co. ..... MAdison 8-5256
Denver: Reitz Sales ..... EAst 2-6200
Portland: Pacific Electric Sales . BElmont 5-4137

**Copperweld Steel Co.**
Los Altos, Calif. ..... YOrkshire 7-4556
Bellevue, Wash. ..... GLencourt 4-1233

**Cornish Wire Co.**
Los Angeles ..... CApitol 5-4226
San Francisco: G. M. Howard & Assoc. ..... MArket 1-6759
Seattle: Sanderlin Co. ..... ATwater 4-7777

**Crouse-Hinds Co.**
San Francisco ..... GArfield 1-5267
Los Angeles ..... RIchmond 9-3189
Seattle ..... ATwater 3-7262
Portland ..... CApitol 7-2115
Denver ..... TAbor 5-6639
Salt Lake City ..... EMpire 3-5513

**Curtis-AllBrite Lighting, Inc. Curtis Lighting Division**
All-Brite Lighting Div. in following cities:
South San Francisco ..... PLaza 5-7077
Monterey Park, Calif. ..... ANgeles 8-1144
Seattle ..... EAst 5-9600
Denver ..... SKyline 6-1668

**Davey Tree Surgery Co.**
San Francisco ..... SUtter 1-3377
Los Angeles ..... MAdison 3-1929

**Dessert Mfg. Corp.**
San Francisco: Curry Co. ..... YUkon 2-0788
Los Angeles: Metzinger-Johnson Co. ..... MAdison 4-8001
Oswego, Ore.: Henry G. Lehl.. NEptune 6-4210
Denver: R & M Sales Co. ..... SPruce 7-2515
Salt Lake City: T. R. Van Wagoner ..... INgersol 6-2461

**Driver-Harris Co.**
San Francisco: Angus-Campbell, Inc. ..... ATwater 8-4208
Los Angeles: Angus-Campbell, Inc. ..... LUdlow 7-1236

**Duncan Electric Co., Inc.**
Covina, Calif: C. C. Blacksmith ..... EDgewood 2-2150
Reno: Kitchen Elec. Supply Co.. FAirview 2-4533
Albuquerque: A & A Supply ..... ALpine 6-0307
Phoenix: W. H. Eddy Elec. Prod. Inc. ..... ALpine 2-6322
Billings: Montana Elec. Supply... Phone: 2-0528
Denver: Hamilton Associates ..... CHerry 4-1505
Shaffer & Nelson, Inc. in following cities:
Seattle ..... MUtual 2-0186
Portland ..... BElmont 4-7437
Spokane ..... FAirfax 7-9528
Salt Lake City ..... ELgin 5-8304

**du Pont de Nemours & Co., E. I., Elastomer Chem. Dept.**
Los Angeles ..... LUdlow 2-6464
San Francisco ..... DAvenport 6-7550
Seattle ..... MElrose 2-6977
Portland ..... CApitol 7-1281
Denver ..... AComa 2-2347
Salt Lake City ..... EMpire 4-3582

**Eagle Electric Mfg. Co., Inc.**
San Francisco: Brill Electric Sales SUtter 1-7547
Los Angeles: D. Niemann .... MAdison 6-7736
Portland: M. Levin ..... CApitol 2-9591

**Edwards Company, Inc.**
Los Angeles ..... MAdison 8-2286
San Francisco ..... UNderhill 1-5800
Denver: H. F. Ream Sales Agency ..... CHerry 4-0558
Phoenix: J. A. Ware, Jr. ..... ALpine 2-9388
Portland: D. A. King ..... CApitol 8-1990
Seattle: F. A. Strohecker ..... MAin 3-0357
Spokane: E. Johnston ..... MUtual 2-3597

**Electric Tube Products**
Los Angeles: Weingart & Lustig.. ADams 3-4111
Portland: Pacific Electric Sales .. BElmont 5-4137

**Electro Compound Co.**
Los Angeles: Golsan Co. ..... RIchmond 7-5486
Portland: Oregon Mfg. Agents... Capitol 6-3971
Denver: R&M Sales ..... SPruce 7-2515
San Francisco:
Electrical Sales Co. ..... EXbrook 7-2087

**Electromode Div. of Commercial Controls Corp.**
Belmont, Calif.: M. A. Stensen Sales Co. ..... LYtel 3-7903
Los Angeles: J. E. Shull ..... ANgelus 1-2077
Seattle: Boscoe Sales Co. ..... MAin 3-8680
Denver: George Miller ..... GLendale 5-6296

**Empire Metal Products Co.**
Denver: Hamilton Associates .... CHerry 4-1505
Los Angeles: Sherman-Mitchell Co.... GU 8-3418

**English Electric Co. Ltd.**
New York City ..... Murray Hill 7-0303
James I. Metcalf & Co. Inc.:
Seattle ..... MAin 4-6322
Portland ..... CApitol 6-6096
San Francisco ..... GArfield 1-0653
Los Angeles ..... MAdison 2-3019
Phoenix ..... ALpine 8-4696

**Everstick Anchor Co.**
Joslyn Pacific Co. in following cities:
Los Angeles ..... LUdlow 7-4251
San Francisco ..... UNderhill 1-7313
Seattle ..... MAine 3-1957
Portland ..... CApitol 3-5127

**Graybar Electric Co. in following cities:**
San Francisco ..... MArket 1-5131
Denver ..... TAbor 5-7111
Denver: Paul A. Douden..... KEystone 4-6798
Denver: Hendrie & Bolthoff Co. ..... KEystone 4-4111

**Fanner Mfg. Co.**
San Francisco: Sold Through Line Materiel Industries ..... PLaza 5-8600
Los Angeles ..... RAymond 3-6251
and OXford 5-2260
Phoenix ..... ALpine 4-8471
Denver: Slaybaugh & Thompson.. AComa 2-5826
Portland: A. L. Polich..... CApitol 3-6241

**Fargo Mfg. Co. Inc.**
Sold thru Line Material Industries:
San Francisco: ..... PLaza 5-8600
Los Angeles: ..... RAymond 3-6251
and OXford 5-2260
Denver ..... FLorida 5-1689
Portland ..... CApitol 2-1981
Seattle ..... ATwater 3-6368
Spokane ..... KEystone 5-2461
Salt Lake City ..... ELgin 5-6257
Phoenix: J. E. Redmond Co. .... ALpine 4-8471

**Federal Pacific Electric Co.**
San Francisco ..... ATwater 2-0810
Los Angeles ..... CLinton 7-8281
Seattle ..... ATwater 3-7801
Oswego, Ore. ..... NEptune 6-4573
Salt Lake City: James Stephens Co.. ELgin 5-3540
Denver: R. D. Florence Co. ..... AComa 2-1573
Hamilton Associates ..... CHerry 4-1505
Albuquerque: F. W. Gorman ..... CHapel 7-1596
Phoenix: Elec'l. Eng. & Sales Corp. ..... ALpine 3-0927

**Fisher-Pierce Co. Inc.**
San Francisco: Maydwell & Hartzell ..... ATwater 8-6900
Los Angeles: Maydwell & Hartzell ..... MAdison 8-7245
San Diego: Maydwell & Hartzell. CYpress 6-2245
Phoenix: Maydwell & Hartzell... ALpine 2-5858
Seattle: Oscar Hogenson ..... MAin 2-0737
Portland: J. A. Tudor Asso. .... BElmont 2-1188
Denver: Allen I. Williams ..... MAine 3-0343

**Fluor Corp. Ltd.**
Los Angeles ..... ANgelus 2-6111
San Francisco ..... SUtter 1-5805

**Fullman Mfg. Co.**
San Francisco: L. F. Church... UNderhill 1-2840
Los Angeles: Payne & Sloan ... MAdison 4-7317
Denver: Harvey Olmstead ..... TAbor 5-6264
Bellevue, Wn.: R. C. English ..... GL 4-0566
Portland: Wiant Products ..... CApitol 7-2671

**G & W Electric Specialty Co.**
San Francisco:
C. E. Ingalls Sons ..... GArfield 1-2916
Los Angeles:
R. E. Cunningham & Son .... MAdison 8-1105
Seattle: W. R. Hendrey Co. .... MAdison 3-3968
Salt Lake City:
Riter Engineering Co. ..... EMpire 3-7933
Denver: H. C. Guire Co. ..... SPruce 7-2864
Albuquerque: Frank W. Gorman. CHapel 7-1596

**Godnay Electric Co.**
San Francisco: Baxter Co. ..... MArket 1-8636
Los Angeles: Rutkin Electric Sales ..... MAdison 3-1224
W. S. Sanderlin Co. in following cities:
Seattle ..... ATwater 4-7777
Portland ..... BElmont 5-0121
Salt Lake City: George Darger Co. ..... ELgin 5-2873

**General Electric Co. Cleveland, Lamp Div.**
Oakland ..... LOckhaven 9-3222
Los Angeles ..... DUnkirk 5-1681
Denver ..... AMhurst 6-0285
Seattle ..... MAin 2-8081
Portland ..... CApitol 3-2101

**General Electric Co. Schenectady, Apparatus Div.**
San Francisco ..... DOuglas 2-3740
Los Angeles ..... MAdison 5-7381
Phoenix ..... ALpine 8-7724
Denver ..... KEystone 4-7171
Boise ..... 4-3021
Salt Lake City ..... EMpire 4-1891
Portland ..... ATwater 8-0281
Seattle ..... MAin 4-8300

**General Electric Supply Co.**
San Francisco ..... UNderhill 3-4000
Los Angeles ..... MAdison 5-7141
Seattle ..... LAkeview 5-6515
Portland ..... CApitol 7-0651
Denver ..... AMherst 6-0671
Offices in all principal cities

**Graybar Electric Co. Inc.**
San Francisco ..... MArket 1-5131
Los Angeles ..... ANgelus 3-7282
Phoenix ..... ALpine 2-2371
Denver ..... TAbor 5-7111
Boise ..... Boise 2-4501
Butte ..... Butte 3233
Portland ..... CApitol 7-6641.
Seattle ..... MUtual 2-0123
Salt Lake City ..... ELgin 9-8771

**Greenlee Tool Co.**
San Francisco: Lippincott Co. Inc. ..... EXbrook 2-2687
Los Angeles: Lippincott Co. Inc. ..... MAdison 8-8186
Seattle ..... MAin 3-3085
Salt Lake City ..... CRestwood 7-1298

**Hathaway Instrument Div. Hamilton Watch Co.**
Denver ..... SKyline 6-8301
Los Angeles ..... VE 7-3311
Also ..... EX 8-3079
Albuquerque, N. M.:
A. I. Williams Co. ..... ALpine 5-9632

**Helicopter Corp. of America**
Santa Monica, Calif. ..... EXmont 8-6739
Salt Lake City ..... INgersoll 6-4932

**Hill Transformer Co.**
San Carlos ..... LYtel 3-2161
Los Angeles: Maddox Sales Co.. MAdison 4-2306
Seattle: J. A. Tudor & Assoc. ... MUtual 2-7444
Portland: J. A. Tudor & Assoc... BElmont 2-1188
Denver: H. C. Guire ..... SPruce 7-2864
Salt Lake City: Stevens Sales... INgersoll 7-5489
Phoenix: Maddox Sales Co. ALpine 2-2371
Albuquerque: Ralph D. Black Co. ALpine 5-9265

**Holophane Co. Inc.**
San Francisco ..... YUkon 2-9655
Bremerton, Wash. ..... TRiangle 6-4069
Montebello, Calif. ..... RAymond 3-5738
Littleton, Colo. ..... PYramid 4-4527

**Honn Co., George E.**
San Francisco ..... SUtter 1-7352

**Hope Electrical Products Co.**
San Francisco:
Walter E. Wallace ..... EXbrook 2-6621
Los Angeles: Robert M. Schow. HUbbard 3-7931
Portland: R. C. English & Assoc. CApitol 7-2671
Bellevue, Wn.: R. C. English & Assoc. GL 4-0566
Denver: L. D. Hood Sales ..... AComa 2-8001

**Hotpoint Co., Div. G. E. Co.**
San Mateo-San Francisco ..... DIamond 2-5591
Los Angeles ..... MAdison 4-9201
Seattle ..... MAin 3-8340
Portland ..... CApitol 6-3776
Denver ..... KEystone 4-0131

**Hubbard and Co.**
Emeryville, Calif. ..... OLympic 2-6600
Los Angeles ..... MAdison 4-8631
Oswego, Portland ..... NEptune 6-2390
Salt Lake City ..... INgersoll 7-5749

**Hubbell, Inc., Harvey**
San Francisco ..... MIssion 7-3240
Los Angeles ..... MAdison 8-7226
Denver: Paul A. Douden..... KEystone 4-6798
Spokane: Elmer Johnson ..... MAin 2518
Seattle: Frank A. Strohecker..... MAin 3-0357
Portland: David King..... CApitol 8-1990

**Incandescent Supply Co.**
San Francisco ..... SUtter 1-4600

**Indiana Steel & Wire Co. Inc.**
Graybar in following cities:
San Francisco ..... MArket 1-5131
Los Angeles ..... ANgelus 3-7282
Portland ..... CApitol 7-6641
Seattle ..... MUtual 2-0123
Denver ..... TAbor 8-7111
Salt Lake City ..... ELgin 9-8771

**International Business Machines**
Los Angeles ..... DUnkirk 1-3696
San Francisco ..... YUkon 2-0100
Denver ..... AComa 2-9373
Seattle ..... MUtual 2-4640
Portland ..... CApitol 8-6623
Salt Lake ..... ELgin 9-7721

**Jennings Radio Mfg. Corp.**
San Jose ..... CYpress 2-4025

**Jet Line Gun Co.**

**Johns-Manville Corp.**
San Francisco ..... DOuglas 2-4353
Los Angeles ..... LUdlow 7-2141
Seattle ..... MElrose 3-4300
Denver ..... KEystone 4-6378
Salt Lake City ..... EMpire 4-8446
Portland ..... CApitol 3-8260

**Joslyn Mfg. and Supply Co.**
Los Angeles ..... LUdlow 7-4251
San Francisco ..... UNderhill 1-7313
Seattle ..... MAin 3-1957
Portland ..... CApitol 3-5127
Phoenix ..... ALpine 2-1245
Salt Lake City ..... EM 3-2084

**Kaiser Aluminum & Chemical Corp.**
Oakland ..... CRestview 1-2211
Los Angeles ..... MAdison 6-4801
Denver ..... ALpine 5-3459
Phoenix ..... ALpine 3-4841
Portland ..... CApitol 6-4351
Seattle ..... MAin 3-7821
Spokane ..... TEmple 8-2704

**Kamphausen Co., Dan**
Denver ..... CHerry 4-0559

**Kearney Corp., James R.**
Maydwell & Hartzell, Inc., in following cities:
San Francisco ..... ATwater 8-6900
Los Angeles ..... MAdison 8-7245
Seattle ..... MAin 4-2368
Portland ..... CApitol 8-4173
Spokane ..... MAdison 4-3285
Phoenix ..... ALpine 2-5858
San Diego ..... CYpress 6-2245
Salt Lake City: Conely Engineering Co. ..... EMpire 3-5013
Golden, Colo.: Ralph Smith ... CRestview 9-5279

**Kerite Co.**
San Francisco ..... GArfield 1-2916
Glendale, Calif. ..... CHapman 5-3721

**Killark Electric Mfg. Co.**
San Francisco: F. M. Nicholas .... YUkon 2-1964
Los Angeles: Kenneth Anderson Co. ..... ANgelus 8-6771
Seattle: Northwestern Agencies, Inc. ..... MAine 3-8882
Denver: Kenneth B. Schumann Co. ..... AComa 2-8913
Phoenix: Kenneth B. Schumann Co. ..... AMherst 5-2863

**Klein & Sons, Mathias**
Glendale, Calif. ..... CItrus 3-3523
Sunnyvale, Calif. ..... CHestnut 5-2310

**Kortick Mfg. Co.**
Maydwell & Hartzell Inc. in following cities:
San Francisco ..... ATwater 8-6900
Los Angeles ..... MAdison 8-7245
Seattle ..... MAin 4-2368
Spokane ..... MAdison 4-3285
Portland ..... CApitol 8-4173
Phoenix ..... ALpine 2-5858

**KPF Electric Co.**
Stockton, Calif. ..... HOward 4-8381

**Kraloy Plastic Pipe Co. Inc.**
Los Angeles: ..... Angelus 1-4158
San Francisco: The Curry Co. .... YUkon 2-0788
Seattle: Fred Carlson Co. ..... ATwater 4-4630
Denver: Kenneth B. Schomann Co. ..... FRemont 7-3023
Albuquerque: Ralph B. Black .... ALpine 5-9625

**Kuhlman Electric Co.**
Maydwell & Hartzell, Inc., in following cities:
San Francisco ..... ATwater 8-6900
Los Angeles ..... MAdison 8-7245
Seattle ..... MAin 4-2368
Portland ..... CApitol 8-4173
Phoenix ..... ALpine 2-5858
Spokane ..... MAdison 4-3285
San Diego ..... JU 2-6749
Denver: Sales Engineers ..... AComa 2-4893
Salt Lake City: Sales Engineers . HUnter 5-3547

**Lapp Insulator Co. Inc.**
San Francisco: Donald E. Ingalls ..... JUnaau 6-0332
Los Angeles: Earl S. Condon & Co. ..... DUnkirk 1-3951
Seattle: Charles F. James ..... MAdison 3-1531
Salt Lake City: Riter Engineering Co. ..... EMpire 3-7933
Butte: R. E. McDonough Co. ..... 2-5447

**Lighting Dynamics**
San Diego ..... KImberly 5-4993
Los Angeles ..... RAymond 3-9101
San Francisco ..... JUniper 6-5266
Portland: Clyde Dodd ..... CApitol 7-6557
Seattle: Don Gleason ..... LAkeview 5-5151
Phoenix: Ray Wendling ..... ALpine 2-2541

**Line Material Industries**
San Francisco ..... PLaza 5-8600
Los Angeles ..... RAymond 3-6251
Portland ..... CApitol 2-1981
Seattle ..... ATwater 3-6368
Spokane ..... KEystone 5-2461
Salt Lake City ..... ELgin 5-6257
Phoenix: J. E. Redmond Supply .. ALpine 4-8471
Boise ..... Phone: 2-5706
Butte ..... Phone: 8340
Denver ..... FL 5-1689 and 1680
Sacramento, Calif. ..... GI 2-6264

**McCabe Powers Auto Body Co.**
Berkeley ..... LAndscape 4-4416
Portland ..... BElmont 6-1178
Pomona ..... NAtional 4-6464
Phoenix ..... BRidge 5-5774
Salt Lake City ..... DAvis 2-5658
Spokane ..... FAirfax 5-2591
Los Angeles ..... RIchmond 9-3424

**McCormick & Baxter Creosoting Co.**
San Francisco ..... YUkon 2-4033
Los Angeles ..... CHapman 5-4667
Portland ..... AVenue 6-3654

**Maddox Sales Co.**
Los Angeles ..... MAdison 4-2306

**Marcus Transformer Co. Inc.**
San Francisco: E. B. Cook Co. . UNderhill 1-2621
Los Angeles: Pacific Industries .. WEbster 3-0335
Seattle: N. R. Schultz Co. ..... SEneca 6-6369
Denver: R & M Sales Co. ..... SPruce 7-2515
Albuquerque: McGillen Sales Co. ..... ALbuquerque 5-5239

**Mark & Co., Clayton**
San Francisco: Hodges & Giomb, Inc. ..... UNderhill 1-2367
Los Angeles: Rutkin Elec'l. Sales Co. ..... MAdison 3-1224
Denver: W. E. Young Co. ..... AComa 2-4841
Seattle: Electric Agencies ..... MAin 3-2360

**Markel Electric Products, Inc.**
San Mateo, Calif. ..... FIreside 5-1496
Los Angeles: O. W. Coombs .. RIchmond 7-0603
Portland: Pacific Elec. Sales .... BElmont 5-4137
Phoenix: Wm. Benndorf ..... CR 7-1662

**Mason Co., L. E.**
San Francisco: G. M. Howard & Assoc. ..... MArket 1-6759
Los Angeles:
John M. Fincke Co. ..... CApitol 5-4226
Portland:
Pacific Electric Sales Co. .... BElmont 5-4137
Denver:
Harry F. Ream Sales Agency .. CHerry 4-0558

**Maydwell & Hartzell, Inc.**
San Francisco ..... ATwater 8-6900
Los Angeles ..... MAdison 8-7245
Phoenix ..... ALpine 2-5858
Portland ..... CApitol 8-4173
Seattle ..... MAin 4-2368
Spokane ..... MAdison 4-3285
San Diego ..... CYpress 6-2245
Medford ..... SPring 2-9195

**Minnesota Mining & Mfg. Co.**
San Francisco ..... PLaza 6-0800
Los Angeles ..... RAymond 3-6641
Seattle ..... MUtual 2-5550

**Moloney Electric Co.**
Garland Affolter in following cities:
San Francisco ..... EXbrook 7-1800
Los Angeles ..... MAdison 4-1864
Portland ..... CApitol 3-7349
Seattle ..... MUtual 2-4950
Denver: Hamilton Associates ... CHerry 4-1505
Salt Lake: Riter Engineering ... EMpire 3-7933

**Morrison-Pelsue**
Denver ..... RAce 2-2834
North Hollywood: A. F. Johnson .. STate 7-8544
Salt Lake City: W. H. Pingree Co. ..... EMpire 3-6731
San Francisco: Brenton Equip. Co. ..... EXbrook 2-8185
Los Angeles: Golsan Co. ..... RIchmond 7-5486
Spokane: Tinling & Powell ..... TEmple 8-8276

**Murray Mfg. Corp.**
Los Angeles ..... HOllywood 9-9381
San Francisco:
Ernest F. Hauch Co. ..... HEmlock 1-1828
Portland: Northwest Sales Co. ... CApitol 3-5959
Denver: Gaer Sales Co. ..... Alpine 5-7310
Phoenix: Ralph Mooney ..... AMherst 6-2885

**Myers Electric Products, Inc.**
San Francisco: G. M. Howard ... MArket 1-6759
Denver: A. J. Nelson Co. ..... KEystone 4-6751
Phoenix: Ralph Mooney ..... AMherst 6-2885

**Nards Ultrasonics Corp.**
Los Angeles ..... DUnkirk 8-2201
Palo Alto, Calif.: Pacific Radionics ..... DAvenport 6-6276
Seattle: Ray Johnston Co. ..... LAkeview 4-5170

**National Supply Co., Tubular Prod. Div.**
San Francisco ..... DOuglas 2-2975
Los Angeles: Murphy-Hain Co. .. MAdison 2-2138
Seattle: J. H. Stumph ..... MUtual 2-5232
Denver: Allen B. Carpenter .... KEystone 4-0283
Farmington, Utah: David Merrill ... AXtel 5-4631

**Northwest Electric Light & Power Assn.**
Portland ..... CApitol 6-3039

**Ohio Brass Co.**
San Francisco ..... SUtter 1-5060
Los Angeles ..... MAdison 4-8555
Seattle ..... MAin 2-3842
Denver ..... SKyline 6-7722

**Okonite Co.**
Los Angeles ..... MAdison 4-9677
San Francisco ..... VAlencia 4-7474
Portland ..... CApitol 8-3173
Seattle ..... MAin 4-5277
Salt Lake City ..... HUnter 4-7642

**Orangeburg Mfg. Co. Inc.**
Santa Ana ..... LIncoln 4-1195
Seattle ..... MUtual 2-4566
Newark, Calif. ..... SYcamore 3-2200

**OZ Electrical Mfg. Co.**
San Francisco:
Bichorn & Melchior ..... DOuglas 2-1038
Los Angeles: Agencies Co. .... MAdison 6-5443
Denver:
Harry F. Ream Sales Agency .. CHerry 4-0558
Portland:
Wm. A. Proby Associates ..... CApitol 8-7261
Seattle: Wm. A. Proby Associates .. MAin 3-3483

**Pacific Coast Electrical Association**
San Francisco ..... DOuglas 2-1556
Los Angeles ..... MAdison 3-5610

**Pacific Gas and Electric Co.**
San Francisco ..... SUtter 1-4211

**Pacific Pumps, Inc.**
Los Angeles (Huntington Park) . LUdlow 8-2203
San Francisco ..... GArfield 1-4956
Denver ..... AMherst 6-0386

**Paranite Wire & Cable Div., Essex Wire Corp.**
Los Angeles ..... RAymond 3-4794
South San Francisco ..... PLaza 6-3030
Portland ..... CApitol 3-6124
Seattle ..... MAin 3-5641

**Pass & Seymour, Inc.**
Arcadia, Calif. ..... ELgin 5-6513
Los Altos ..... WHitecliff 8-7041
Los Angeles: J. G. Pomeroy .... MAdison 5-1105
Portland: Shaffer & Nelson .... BElmont 4-7437
Seattle: Shaffer & Nelson ..... MUtual 2-0186
Denver: Sales Engineers, Inc. .... AComa 2-0186
Salt Lake City: Sales Engineers ..... DA 2-4198
Albuquerque: Ralph Black ..... AL 5-9625

**Pennsylvania Transformer Div.**

San Francisco: George E. Honn Co. SUtter 1-7332
Los Angeles: John G. Corrin ..MAdison 2-0830
Seattle: Fred W. Carlson .....ATwater 4-4630
Phoenix: Roy E. Coulson .....WIndsor 3-8935
Denver: Peterson Co. .....DExter 3-5434
Salt Lake City: Clarence W. Silver..ELgin 5-5378
Portland:
Fred W. Carlson & Associates..CApitol 8-3798
Boise, Ida.: Clarence W. Silver Co. .... 2-6947
Albuquerque:
Williamson Sales Co. .....ALpine 6-6617

**Penn-Union Electric Corp.**

San Francisco: F. M. Nicholas Co..YUkon 2-1964
Los Angeles: Kenneth Anderson Co.
.....ANgeles 8-6771
Seattle: Northwestern Agencies ...MAin 3-8882
Portland: Northwestern Agencies..CApitol 7-5004
Salt Lake City: John Eiggren Co..EMpire 3-3945
Denver: Jim Dawson Co. .....ALpine 5-7194

**Peterson Engineering Co., Santa Clara, Calif.**

**Phelps-Dodge Copper Products Corp.**

San Francisco .....EXbrook 2-7379
Los Angeles .....RAymond 3-1311
and PArkview 1-1191
Seattle .....MAin 3-6790
Denver .....CHerry 4-9291
and CHerry 4-9292

**Phillips & Edwards Elec. Corp.**

San Francisco .....UNderhill 3-7400
Oakland .....LOckhaven 9-7746
Redwood City .....EMerson 9-3716
Santa Rosa .....LIberty 6-5995
Stockton .....HOward 4-9888

**PLM Products, Inc.**

Sold thru major cable suppliers

**Porta House**

Oakland .....OLympic 2-7237
Sacramento: Robert Crownin.....GIlbert 3-8543
Portland: Bardi Gen. Contractors
.....PRospect 5-4354
Los Angeles: Construction Supply Co.
.....LUdlow 3-4158
Los Angeles: Ball & Black.....ANgelus 9-7586
Santa Ana: Blystone Equip. Co..KImberly 2-3918

**Porter Co. Inc., H. K., National Electric Div.**

San Francisco .....UNderhill 1-1145
Los Angeles .....RAymond 3-4654
Seattle .....MAin 3-3775
Salt Lake City .....DAvis 2-2701
Denver .....PEarl 3-3741

**Precision Magnetic Controls, Inc.**

San Francisco:
C. E. Ingalls & Sons .....GArfield 1-2916
Los Angeles: Industrial Engineering &
Equip. Corp. .....DUnkirk 1-1281
Denver: Jim Dawson Co. .....ALpine 5-7194
Salt Lake City:
Leonard M. Slusser .....ELgin 3-2322
Vancouver, Wn.:
Bill Horning Sales .....OXford 4-4475

**Preformed Line Products Co.**

San Francisco: K. M. Ryals Co.....YUkon 2-5510
Los Angeles: Earl S. Condon Co..DUnkirk 1-3951
Seattle: Shaffer & Nelson Inc...MUtual 2-0186
Portland: Shaffer & Nelson Inc..BElmont 4-7437
Salt Lake City: Shaffer & Nelson Inc.
.....ELgin 5-8304
Spokane: Shaffer & Nelson Inc...FAirfax 7-9528
Denver: Peterson Co.....DExter 3-5434

**R T & E Corp.**

Portland .....MEroury 9-2161
Medford: H. L. Mooney .....SPring 2-9948
San Jose: N. R. Beebe .....ANdrews 4-5641
Pasadena: D. B. Cole .....SYlvan 0-5977
Salt Lake City: T. R. Van Wagoner Co.
.....INgersol 6-2461
Bellevue, Wn.: K. H. DuBois..SHerwood 6-4114
Butte: R. A. Manning .....Butte 2-9200

**Ramco Mfg. and Engineering**

Portland .....AT 7-1208

**Republic Steel Corp.**

San Francisco .....GArfield 1-0977
Los Angeles .....MAdison 4-5144
Portland: Shaffer & Nelson Inc..BElmont 4-7437
Seattle: Shaffer & Nelson Inc....MUtual 2-0186
Spokane: Shaffer & Nelson Inc...FAirfax 7-9528
Denver: C. D. Belt Co.....SKyline 6-9421

**Ripley Co.**

Portland: Wm. J. Cottrell.....CApitol 7-6191
Phoenix: W. H. Eddy .....ALpine 2-6322
Oakland: J. H. Ormond Co.....TWinoaks 3-3235
Los Angeles: A. W. Nash Co....ANgelus 9-7304

**Roberson, Inc.**

Seattle .....LAkeside 3-1189
Seattle: Palmer Electric Co. .....MA 2-2170
Spokane: Wm. C. Knapp.....FAirfax 7-3621
Spokane: Inland Electric Co. ....FAirfax 7-1521
Tacoma: Bean Electric Co.....MArket 7-3144
Los Angeles: O. B. Wilt Co...NOrmandy 1-4100
San Carlos, Calif.: O. B. Wilt Co...LYtel 1-2618
Graybar Electric Co. Inc., all principal cities

**Rockbestos Products Corp.**

Burlingame, Calif. .....OXford 7-1060
Los Angeles .....DUnkirk 7-7378
Seattle .....MElrose 3-4344

**Rome Cable Corp., Div. of Alcoa**

Los Angeles .....RAymond 3-3631
San Francisco .....VAlencia 6-3580
Seattle .....MAdison 4-3017
Salt Lake City .....ELgin 9-8811
Denver .....KEystone 4-0533

**Royal Electric Corp.**

Los Angeles: Eckert-Lloyd Co...RIchmond 7-9655
San Francisco: Eckert-Lloyd Co...HEmlock 1-5792
Seattle: Northwestern Agencies....MAin 3-8882
Portland: Northwestern Agencies..CApitol 7-0434
Phoenix: Wm. Benndorf ....CRestwood 7-1662
Denver: Hyde Electronics Co. .....WEst 6-3456

**Royal Electric Mfg. Co. Inc.**

San Francisco: Arthur & Allen....YUkon 2-3483
Albuquerque: A & A Supply ....ALpine 6-0307
Phoenix: Roy E. Coulson .....WI 3-8935

**S & C Electric Co.**

Burlingame, Calif. .....OXford 7-1130
El monte, Calif.: Randolph Eng. Corp.
CUmberland 3-4183 and 3-7901
GIlbert 3-1701
Phoenix: Randolph Eng. Corp....ALpine 8-5281
Salt Lake City:
Riter Engineering .....INgersoll 7-9449
Seattle: Muth-Richards Co. .....EAst 3-2128
Portland: Andrew L. Polich, Inc..CApitol 3-6241

**Sangamo Electric Co.**

San Francisco: L. A. Nott.....HEmlock 1-4738
Los Angeles: (Factory Sales) .DUnkirk 7-2336
(Time Switches) .....ANgelus 8-6771
Seattle: T. R. Wood.....MAin 3-8204
Denver: Mt. States Machinery....CHerry 4-7421
Phoenix: J. E. Redmond Co. ....ALpine 4-8471
Portland: R. L. Schoenberger....CApitol 3-8742
Butte: R. E. McDonough.....Butte 2-5447
Tucson .....AXtel 8-4801
Albuquerque:
Gorman Engineering.....CHapel 7-1596
El Paso: Gorman Engineering..KEystone 2-3449

**Shell Oil Co.**

San Francisco .....EXbrook 2-5400
Los Angeles .....MAdison 5-7341

**Simplex Wire & Cable Co.**

Garnett Young & Co. in following cities:
San Francisco .....DOuglas 2-4220
Los Angeles .....ADams 1-4337
Seattle .....MAin 3-0123
Phoenix .....CRestwood 4-5483
Portland .....CApitol 8-8478
Denver: Krippner & Polley .....ALpine 5-1059
Salt Lake City: Conely Eng. Co..HUnter 4-5208

**Slater Mfg. Co.**

San Francisco: Baxter Co. .....MArket 1-8636
Los Angeles: Jack Payne Co....MAdison 4-7317
Denver: Don Steinkamp .....EAst 2-7961
Bruce Emmett in following cities:
Portland .....BElmont 2-8117
Seattle .....MUtual 2-6737
Spokane .....FAirfax 7-5670
Salt Lake City .....DAvis 2-3828

**Smoot-Holman Co.**

San Francisco .....MArket 1-8474
Los Angeles .....ORegon 8-8981
Salt Lake City: J. R. Christensen.EMpire 3-4419
Seattle: F. C. Scherr .....ATwater 2-9230
Portland: Clay Barton .....CApitol 8-3520

**Soapstone Duct Company**

Maydwell & Hartzell, Inc., in following cities:
San Francisco .....ATwater 8-6900
Los Angeles .....MAdison 8-7245
Seattle .....MAin 4-2368
Portland .....CApitol 8-4173
Phoenix .....ALpine 2-5858
Spokane .....MAdison 4-3285
San Diego .....CYpress 6-2245

**Sorgel Electric Co.**

San Francisco: Artwel Elec. Inc. .....JU 6-4184
Los Angeles: W. E. Starr .....ANgelus 1-9204
Phoenix: W. C. Osborn .....WI 3-1815
Denver: Floyd Boyer .....ALpine 5-6770
Oswego, Ore.: H. G. Lehl.....NEptune 6-4210

**Southern California Edison Co.**

Los Angeles .....MAdison 4-7111

**Southern States Equipment Corp.**

Seattle: Jos. C. Platt.....MAin 3-6141
Salt Lake City: H. Lee Rawlings Co.
.....ELgin 9-8811
Denver: R. T. Lewis Co. .....EAst 2-1082
Los Angeles: W. E. Kirk Co.....MAdison 4-3651
Lake Grove, Ore.: C. F. Selby...NEptune 6-1486
Oakland: John H. Ormond ....TWinoaks 3-3235

**Square D Co.**

Los Angeles .....CApitol 1-1171
San Francisco .....JUniper 7-4590
Seattle .....EAst 3-1474
Portland .....BElmont 4-8488
Denver .....KEystone 4-6234
Salt Lake City .....DAvis 2-5859
Phoenix .....ALpine 8-6448
El Paso .....KEystone 3-0544
Spokane .....FAirfax 8-3690
San Diego .....BElmont 3-7621
Fresno .....AMherst 8-6268

**Standard Oil Co. of Calif.**

San Francisco .....SUtter 1-7700
Los Angeles .....MAdison 4-2711
Portland .....CApitol 3-4161
Seattle .....MAin 3-6310
Salt Lake City .....DAvis 2-5831

**Subox, Inc.**

San Francisco: Wrathall & Krusi.EXbrook 7-3993
Los Angeles: R. E. Cunningham & Son
.....MAdison 8-1105
Portland: Wm. J. Cottrell & Assoc.
.....CApitol 7-6191
Seattle: W. R. Hendry Co. .....MAine 3-3968
Denver: Ambler Co. .....TAbor 5-8885

**Superior Cable Corp.**

Maydwell & Hartzell, Inc., in following cities:
San Francisco .....ATwater 8-6900
Los Angeles .....MAdison 8-7245
Phoenix .....ALpine 2-5858
Portland .....CApitol 8-4173
Seattle .....MAin 4-2368
Spokane .....MAdison 4-3285

**Thermador Electrical Mfg. Co.**

Los Angeles .....LUdlow 8-6131
Oakland .....TWinoaks 3-7116
Seattle .....EAst 4-0997

**Thomas Industries, Inc.**
**Lighting Fixture Div.**

Burlingame, Calif. .....OXford 7-1036
Los Angeles .....OVerbrook 5-8050
Salt Lake City .....ELgin 5-2322
Portland .....CHerry 4-7214
Bellevue, Wash. .....ELgin 1-6617
Spokane .....FAirfax 7-3278

**Triangle Conduit & Cable Co.**

San Francisco .....UNderhill 3-6260
Los Angeles .....RAymond 3-3687
Seattle .....MUtual 2-3971
Denver .....SPruce 7-2375

**Tri-State Supply Corp.**

Los Angeles .....MAdison 8-2354
San Francisco .....EXbrook 2-8890
Seattle .....MAin 2-4161

**Truck Equipment Co.**
Los Angeles: Calavar Corp. ... Richmond 8-6292
Oakland: Dalley Body Co. ..... KEllog 4-1423
Portland: Schatky Equipment Corp. ..... BEaverton 4-5344
Spokane: Leland Trailer & Equip. Co. ..... KEystone 4-0591
Salt Lake City: W. H. Pingree Co. . EMpire 3-6731

**Turner Electric Corp.**
Fred W. Carlson in following cities
Seattle ..... ATwater 4-4630
Portland ..... CApitol 8-3798
Butte ..... Phone 8916
Los Angeles:
Industrial Eng. & Equip. Corp. DUnkirk 1-1281
Denver: Hamilton Associates .... CHerry 4-1505

**U. S. Steel Corp.,**
**American Steel & Wire Div.**
**Columbia-Geneva Steel Div.**

**Utility Body Co.**
Oakland ..... TWinoaks 3-8980
Los Angeles: Jumbo Equip Co. ..... Richmond 9-6272
Portland: Douglas Hood Co. .... CApitol 2-9178
Seattle: Truck Welding & Equip. Co. ..... ATwater 4-1172
Spokane: Evergreen Truck Equip. Co. ..... KEystone 5-3677
Salt Lake City: The Lang Co. ..... DAvis 8-8341
Boise: The Lang Co. ..... Boise 3-4933
Phoenix: Trailmobile, Inc. ... APplegate 8-8568
Albuquerque: Rio Grande Sales ..... CH 2-5403
El Paso: Hobbs Trailer Sales Co. . KEystone 2-2489
Denver: Jacobs-Kerr & Co. ..... TAbor 5-5328

**Virden Lighting,**
**Division of John C. Virden Co.**
Atherton, Calif.: W. G. Sawyer ..... DAvenport 5-4931
Fullerton: Wm. K. Newell ..... TRojen 1-1845
Phoenix: Ray E. Wendling ..... ALpine 2-2541
Seattle: Donald S. Gleason .... LAkeview 5-5151
Portland: Clyde E. Dodd ..... BUtler 5-3271

**Wadsworth Electric Mfg. Co. Inc.**
Seattle: Bruce-Emmett Co. ..... MUtual 2-6737
Portland: Bruce-Emmett Co. .... BElmont 2-8117
San Francisco: Hodges & Glomb Inc. ..... UNderhill 1-2367
Los Angeles: Agencies Company ..... MAdison 6-5443
Denver: L. S. Read & Co. ..... ALpine 5-1777

**Wagner Electric Corp.**
South San Francisco ..... PLaze 6-0520
El Segundo, Calif. ..... ORegon 8-7671
Portland ..... CApitol 7-3654
Salt Lake City ..... EMpire 3-5013
Denver ..... CHerry 4-7421
Seattle ..... MAin 2-2342

**Weld Rite Co.**
Oakland ..... ANdover 1-3341

**Wesix Electric Heater Co.**
San Francisco ..... GArfield 1-2211
Los Angeles ..... HUbard 3-7540
Sacramento ..... GIlbert 8-4120
Seattle ..... SEneca 0391
Portland ..... CApitol 6-6495
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**Western Insulated Wire Co.**
Los Angeles ..... LUdlow 7-7103
San Francisco: Curry Co. ..... YUkon 2-0788
Seattle: J. H. Stumph Co. ..... MUtual 2-5232
Albuquerque: John Carder ..... CHapel 2-3581
Salt Lake City:
T. R. Van Wagoner ..... INgersoll 6-2461
Portland: George M. Roth ..... CApitol 7-5654

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San Francisco ..... EXbrook 2-5353
Los Angeles ..... MAdison 6-3881
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Phoenix ..... ALpine 8-8621
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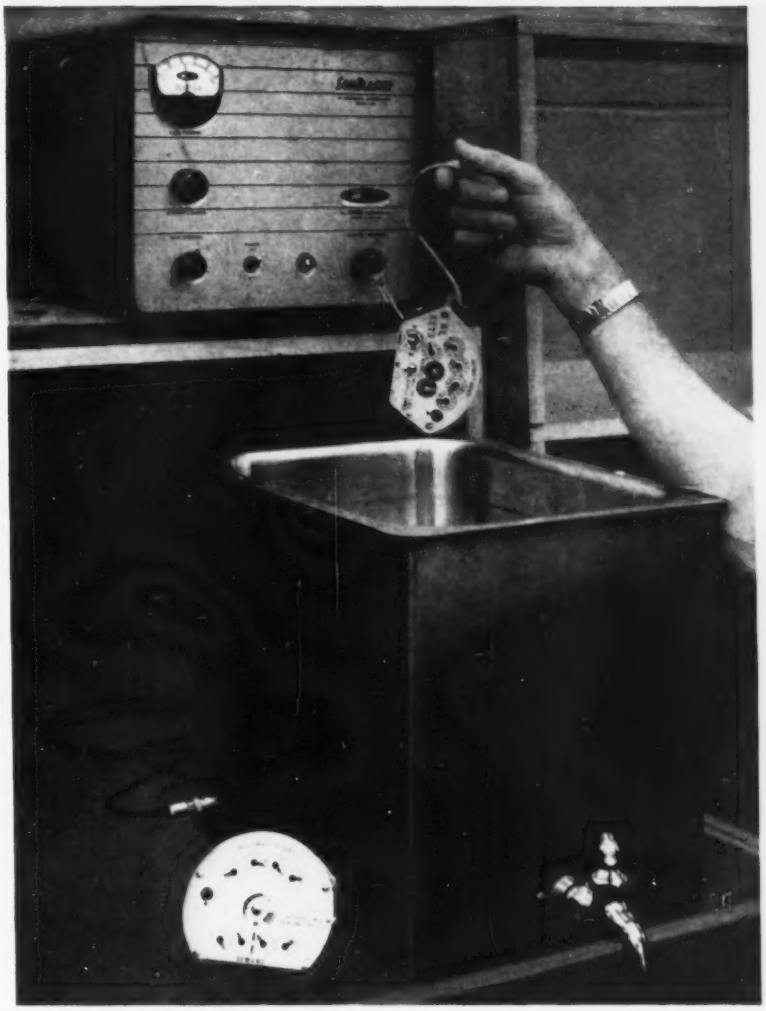
# now! CUT *meter maintenance* COSTS *with a . . .*

# narda SONBLASTER®

## *ultrasonic cleaner!*

- Users report almost 90% savings!
- Clean complete assembly at one time!
- Eliminate hand labor & mechanical brushings!
- No special skills or training needed!



Cleaning meters and demand registers the old-fashioned way requires tedious, expensive disassembly... individual cleaning of each part... and finally, reassembly. It all adds up to labor costs as high as $9 or $10 per register—unless you use a Narda SonBlaster! Then, it's more like $1 per register, and this figure comes from an actual user.

Some more examples: One utility cleaned 16 registers in 36 minutes, including preparation. Another reports that switching to a Narda SonBlaster to clean cumulative demand registers as assembled units saves $11,000 annually, per 10,000 units procesed. And – retirement date is postponed as well.

How's it done? Merely fill the tank with solvent, flip the switch, and submerge your complete assembly. In minutes...seconds...every shaft, gear, bearing and part is meticulously clean! And with no physical labor!

300-watt G-1501 Generator,
5-gallon NT-1505 Tank
Other models from $175
2-year guarantee on all units

**$695**

**Join the dozens of utilities now using Narda SonBlaster. We'll be glad to give you facts and figures to show how *you* can start saving *immediately* on cleaning meter registers, timing devices, and instruments in general. Write us, outlining your problem. Address: Dept. EWt-3.**

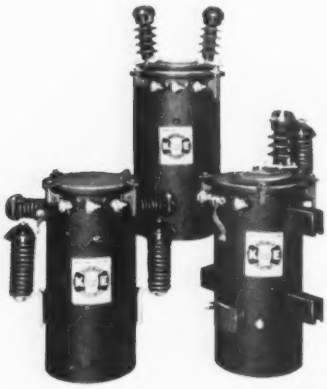
*More SonBlasters sold than all other ultrasonic cleaners combined!*

the narda ultrasonics corporation
625 MAIN STREET, WESTBURY, L.I., N.Y.
5785 N. Lincoln Ave., Chicago • 3259 Wilshire Blvd., Los Angeles
Subsidiary of The Narda Microwave Corporation

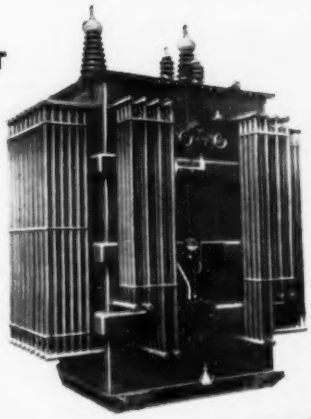
See Page 50 Manufacturers' Directory Section for NARDA Western Sales Offices

# KUHLMAN TRANSFORMERS

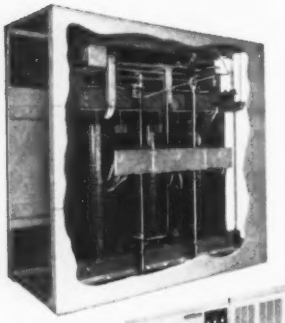
## MADE IN THE WEST—TO SERVE THE WEST



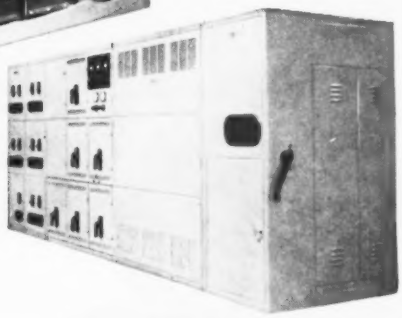
*Kuhlman Pole Type, Conventional CSP and rural transformers.*



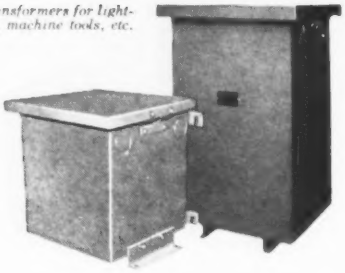
*Kuhlman Substation Transformers, 10,000 KVA through 69 KV, single and three phase.*

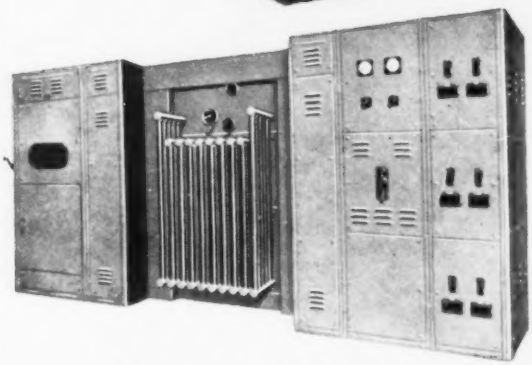


*Designed for maximum 80° rise over ambient temperature of 40° C. Supplied as core and coil units, and as enclosed sections.*

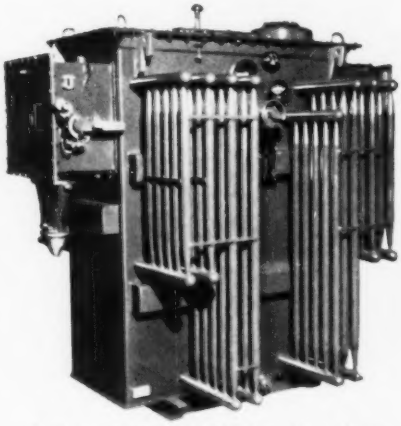


*Dry-type transformers for lighting circuits, machine tools, etc.*





*Indoor power center: Safe-T-Kuhl flush end constructed transformer, primary fused air interrupter switch and low voltage switchgear.*



*Outdoor power center: Oil-filled weatherproof constructed transformer with primary oil immersed switch and low voltage terminal chamber.*

**KUHLMAN**

ELECTRIC COMPANY

**General Offices—Birmingham, Michigan**

**Western Division—Salinas, California**

**See Page 44 Manufacturers' Directory Section for Kuhlman Western Factory and Sales Offices**

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